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PROGRAM NARRATIVE

Springfield School District #19 requests **\$2,196,212** in funding over four years to implement *ArtCore*, an immersive, studio-to-school arts integration and school-wide transformation model. Through the development and prototyping of the processes and products integral to the model, the proposed project will reach at least 1,900 diverse students and 45 teachers at five low-performing middle schools in Lane County, Oregon. The design of this project builds from local partnerships and expertise to create an extensive body of vertically-aligned, research- and standards-based curriculum modules, formative assessment measures, arts integration observation tools, an intensive training series, and corresponding professional learning communities that will all contribute to the models' scale-up potential. The ArtCore model is designed with collaboration as a cornerstone to its success. Art Specialists from the Lane County community will be part of the articulation of each curriculum module, contributing expertise from their discipline and their perspective from the field. An ArtCore team at each participating school will lead the effort of implementing each element of the model with fidelity.

This model aligns with the common vision of each participating school to provide their students engaging opportunities to be creative and innovative and to take risks in their learning. The ArtCore design emerges from a research-based framework that incorporates strategic thinking skills, growth-oriented mindset, and the set of dispositions necessary for students to become confident, creative, and contributing individuals. The ArtCore experience for teachers will transform their approach to cross-disciplinary collaboration, innovation, and effective feedback to and from students. The ArtCore experience for students will engage, challenge, connect, and deepen the interests and long-term goals unique to each individual pathway.

1. Absolute Priority – Evidence of Effectiveness: *To enhance, expand, evaluate, and disseminate innovative, cohesive models that have demonstrated effectiveness in (1) integrated standards-based arts education into core middle school curriculum, (2) strengthening standards-based arts instruction in the middle school curriculum, (3) improving the academic performance of students in middle school grades, including their skills in creating, performing, and responding to the arts.* The evidence of effectiveness behind the proposed model is elaborated in section 2. *Significance of Project* and throughout section 3. *Project Design*. As a cohesive school transformation model, the design builds from evidence and recommendations resulting from extensive research on: (a) *evaluation of comprehensive arts integration programs aimed at increasing student achievement;* (b) *critical motivational factors;* (c) *designs of effective professional development;* and (d) *the use of technology in teaching and learning (discussed in Priority 2 below).*

The design of this model built upon the evaluation research conducted on three programs. The studies all used quasi-experimental designs and longitudinal growth analysis with careful attention paid to the internal validity of the comparison groups used. These model programs include *Different Ways of Knowing Model* in Jefferson County, Kentucky; *the Mississippi Whole School Initiative*; and the *Oklahoma A+ Schools* program. Across all three programs, the primary goals focused on increasing academic achievement in math and reading while promoting interdisciplinary thinking across the academic core and the visual, performing, and media arts. Each program served socioeconomically, ethnically, and racially diverse schools providing generalizability of the results. Overwhelmingly, results from all three studies showed statistical significance for a school-wide arts integrated learning model in terms of: (a) academic achievement gains on standardized tests, (b) teacher collaboration, stronger parent and community support, (c) a more creative, positive school climate, and (c) in many cases, increased

confidence for students that transferred to academic domains (Barry, 2010; Corbett, Wilson, & Morse, 2003; Munoz, Ross, & McDonald, 2007).

This proposed model explicitly identifies the motivational factors that extensive research in psychology indicates are critical to becoming an avid and successful learner (Bandura, 2006; Duckworth, 2007; Dweck, 2006; Oyserman, 2004). These factors – self-efficacy, grit and perseverance, mindset, and concept of future – are not only critical to student success but are also critical to learning and creation in the arts. Catterall and Peppler’s (2007) research demonstrates that learning through the arts develops self-efficacy, confidence, and a mindset geared towards growth. Visual Thinking Strategies is another research-based practice shown to be effective in increasing academic engagement and achievement that will be incorporated across disciplines to facilitate a student-centered arts integrated experience (Housen, 2002).

The professional development activities incorporated into this model build from the evidence gathered from practice and from research. These practices include: (a) long-term duration of training (>80 hours) with professional learning communities, feedback, and modeling to fully adopt new approaches (Darling-Hammond, 2010); (b) opportunities to deepen content knowledge within the context of the school level initiatives (Darling-Hammond & Richardson, 2009); and (c) co-teaching and collaborative development of curriculum in arts integration (Rabkin, Reynolds, Hedberg, & Shelby, 2011; Wolf, 2010). This proposed model provides a combined 100 hours of training, co-teaching, and collaborative curriculum development to classroom teachers in the first year of their involvement. Following years will provide teachers continued opportunities to learn and apply the ArtCore arts integrated approach and digital curriculum tools. Professional learning will be contextualized to the individual disciplines they are integrating (e.g. visual arts, language arts, and mathematics). The online professional

learning communities created through ArtCore, coupled with in-class observations, will activate new approaches, provide feedback, and push teachers to improve their instructional practices.

2. Preference Priority 1 – Turning Around Lowest-Achieving Schools: (a) *To improve student achievement in persistently low-achieving schools.* This proposed project meets the requirements for Preference Priority 1 by implementing the model at the Network Charter School in Eugene, Oregon. The Network Charter School is identified on the Federal list of Tier I and Tier II eligible schools for the School Improvement Grants program in FY 2009. (b) *To provide services to students enrolled in persistently lowest-achieving schools.* This proposed project will provide numerous services aimed at increasing student achievement, including: (1) extensive professional development for teachers on standards-based arts integration, effective feedback, and assessment processes; (2) intensive art specialist immersion experiences with art specialists and classroom teachers; (3) technology-driven access to feedback on projects, affinity with interest groups, archive of work in e-portfolio with opportunities for reflection and refinement of work, and new connections to experts and professionals in the community; and (4) through consistent school-wide implementation by the end of four years.

3. Preference Priority 2 – Technology: *Aimed at improving student achievement or teacher effectiveness through the use of high-quality digital tools or materials, which may include preparing teachers to use the technology to improve instruction, as well as, developing, implementing, or evaluating digital tools or materials.* Students, today, are engaged in social networking and digital media production constantly outside of school. In the knowledge-based economy, technological literacy and skill are deeply embedded in the 21st century skills that students need to develop to be competitive in the careers of tomorrow; schools must empower students by improving their own ability to incorporate technology in their teaching (U.S. Department of Education, 2010). Researchers have found that *crowdsourcing* is a new way for

young people to pool their resources and solve complex problems (Brabham, 2008). The incorporation of innovative technology, networking among students and teachers, and the creation of high-quality digital resources is a cornerstone to the ArtCore model. This aspect will provide increased quality, accessibility, and longevity of professional learning for teachers and arts integrated learning for students and will address the participation gap of isolated low-income and/or rural schools in a world of networked learning.

While students will learn about app development from professional software developers, digitize their work with cameras, and even experiment with 3D software to actually print out their own prototypes, the most critical aspect of technology use in this model is (a) how students share their work and get feedback from art specialists and peers and (b) how teachers access and contribute to the curriculum modules in an evolving process within a professional learning community. A new, customizable learning management system, obaworld.net, will provide the platform for both of these innovations to occur. Technology-driven project-based experiences can support students taking more ownership of their learning (Fiske, 1999; Strobel & van Barneveld, 2009). Learning effective reflection is a critical aspect for how students and teachers, alike, monitor and adjust their work (Hattie, 2009). The ArtCore model will use technology tools and the online learning platform to enhance reflection, feedback, and the refinement of skills, technique, and final products within an intensive project-based learning process. Teachers will receive ongoing coaching from art specialists on how to optimize their use of technology tools in arts integration as well as trainings from ObaWorld developers to facilitate their use of the platform in their curriculum development and delivery.

Video vignettes of professional role models that scaffold domain-specific learning and exposure to a specific discipline has shown promise for scaling up the ability of volunteer professionals to reach a larger audience (Ware & Stein, 2013). Based on examples in STEM

domains, such as the Curiosity Machine developed by Iridescent Learning (iridescentlearning.org), this model will build a bank of professionally made video shorts of art specialists sharing compelling aspects about their work. These videos will include follow-up exercises, discussion questions, prompts, and additional resources to engage students further in their inquiry in the classroom. The *Project Design* section starting on page 7 provides greater detail on the infusion of technology in the ArtCore model.

B. SELECTION CRITERIA

1. NEED FOR PROJECT

Addressing needs of students at risk. This Arts Education Model Development and Dissemination (AEMDD) project proposes to work in five middle schools within four school districts, each with their own distinct diversity, resources, and commitment to improving the achievement of their students facing the greatest risk factors, such as poverty and lack of access to enriching opportunities. The participating schools were chosen carefully for several reasons. As Table 1 illustrates, they each face declining student achievement over the past three years and currently fall in the range of *below the bottom 5% to below the bottom 40% in the state of Oregon*. In the past two years, the percent of students reaching proficiency declined for mathematics and reading in almost every case and, sometimes, dramatically. Compared to the demographics across Oregon and in neighboring schools within the same districts, they serve a high percentage of minority students. Students from participating schools will benefit from engagement in the arts integrated across core academic areas and from the transfer of many non-academic attributes to boost their academic skills. Table 1 lists the five schools, along with their demographic and achievement data, that will participate in the ArtCore AEMDD-funded project.

Table 1 *Demographics of Participating Schools in Lane County, Oregon (2012 – 2013)*

<i>Schools</i>	<i>Student Enroll.</i>	<i>Minority %</i>	<i>% F/R Meals Eligible</i>	<i>Proficient in Reading</i>	<i>Proficient in Math</i>
Network Charter School, Eugene SD	95	15%	80%	2011-12: 93.5%	2011-12: 45.2%
				2012-13: 88.2%	2012-13: 26.5%
Cascade Middle School, Bethel SD	332	34%	74%	2011-12: 69.5%	2011-12: 52.9%
				2012-13: 69.4%	2012-13: 53.7%
Kelly Middle School, Eugene SD	417	38%	72%	2011-12: 68.7%	2011-12: 61.5%
				2012-13: 68.5%	2012-13: 58.9%

Oaklea Middle School, Junction City SD	473	26%	62%	2011-12: 72.3%	2011-12: 53.5%
				2012-13: 64.5%	2012-13: 43.4%
Agnes Stewart Middle School, Springfield SD	617	38%	69%	2011-12: 65.3%	2011-12: 59.0%
				2012-13: 64.2%	2012-13: 55.7%

Retrieved from <http://www.ode.state.or.us/data/reports/toc.aspx#Report Cards / AYP Archive>

Addressing need to strengthen arts integration. While Network Charter School (NCS) serves both middle school and high school students, only middle school students will participate. Categorized by the U.S. Department of Education as a *persistently lowest-achieving school*, the graduation rate of students who attend NCS ranged from 20.6% to 39.3% over the past four years. Like the other four sites, NCS provides an excellent fit for prototyping this model. NCS school leaders have indicated that this project will greatly enhance curriculum integration by improving the alignment to standards; by broadening the field of disciplines and adult role models for students to access; and by connecting NCS teachers to a professional learning community at the other participating sites. NCS leaders indicate that the isolation of a small charter school in a big city negatively impacts the growth and innovation of their teachers.

Oaklea Middle School (OMS) in Junction City, OR shares the lack of academic success with the other three urban schools, but adds a rural factor. With a population of 5,552, Junction City is located 16 miles north of Eugene and Springfield, an urban area with a population of 351,715. Mirroring the economic decline of the community in which they live, students at OMS struggle academically. Geographic isolation and growing poverty levels have created an increasingly barren landscape of educational options and supports for students. The economic downturn, chipping away at what few resources remain, threatens to accelerate downward trends in student achievement and increase other social risk factors, such as delinquency and lack of enrichment opportunities. In 2012-13, OMS students performed below the 10th percentile of all

Oregon schools. While OMS currently has a music specialist who works with each classroom once a week, the district eliminated the art teacher six years ago due to budget constraints.

In Eugene School District 4J, Kelly Middle School (KMS) is among the schools with the highest poverty levels and academic needs. Despite the efforts in Eugene to close the achievement gap, standardized test scores at KMS are far below the district average in reading, math and science. Budget cuts have eliminated art teachers in the elementary schools in Eugene and often made access to the arts at the middle school level dependent on fundraising efforts localized to each school. Severe budget cuts left students attending school for only 165 days during the 2013-2014 school year. While 38% of students are minorities and ¼ are Latino, this population is rapidly increasing. The selection of culturally responsive art disciplines and Latino artists offered through this project will have an especially positive impact by contextualizing the learning of Latino students, honoring their perspectives, and presenting Latino role models. In Springfield Public Schools, the number of Latino students has doubled in the past five years

Like KMS, in the neighborhood where Agnes Steward Middle School (ASMS) is located in Springfield, 70% of adults lack a college degree and over 20% did not graduate high school. Many ASMS students are at risk for not enrolling in postsecondary study. In fact, Springfield High School, where many ASMS students attend, only graduated 61% of seniors in 2012-2013. Students lack role models and information about college and careers. During the school year, ASMS students only receive one dedicated art class weekly for a single 18-week rotation. Many of these students' families cannot afford cultural experiences and arts enrichment activities outside of school.

Cascade Middle School in the Bethel School District shares similar demographics to KMS and ASMS and also shares a lack of a dedicated art class during the school day. CMS students rely on the ingenuity and will of their teachers during enrichment periods to integrate

arts into the learning objectives. There is no formal art class offered. CMS leaders indicate that the level of arts integration is inconsistent from teacher to teacher. While CMS students can participate in band or choir, if they happen to require math intervention, they miss the opportunity and must attend math tutoring instead. The ArtCore model at CMS will redefine how students learn math and recalibrate priorities for instructional time. By developing self-efficacy and a growth-oriented mindset through mastery in the arts, disadvantaged and academically struggling students across these schools will become more engaged and hopeful during their middle school years. Recent training with Jon Saphier at Research for Better Teaching introduced teachers at participating schools to the growth mindset ideas around effective feedback. They stand prepared and excited to launch ArtCore's holistic model of integration using motivational strategies with arts-integrated, standards-based curricula. Through this ArtCore project, the selected schools will adopt a transformational focus on arts-integration through intensive professional learning and collaborative development of curricula.

2. SIGNIFICANCE OF PROJECT

Potential utility of processes and products. The ArtCore model creates a continually growing infrastructure of curriculum materials with high quality, engaging multimedia presentations that capture diverse art specialists, arts entrepreneurs, and teachers and students themselves discussing and demonstrating their work to push participants to refine their technique, shift their perspective, and embrace failure and critique with a growth-oriented mindset on their progress. By locating these materials on an existing interactive, accessible online learning platform, these resources, alongside teacher professional learning communities and a youth network of peers, will be available to other communities nationally. Schools aiming to begin the shift towards arts integration can access and contribute to these materials and apply them across the curriculum and in- and out-of-school learning time. Integrating new approaches

to instruction and feedback that research indicates support student growth academically and creatively, these curriculum modules will have professional learning opportunities embedded throughout. As the section 3. *Project Design* articulates, this proposed project contributes significantly to extant models of arts integration through alignment across domains of college and career readiness, arts education, and the academic core. The overarching goal is to establish strong evidence that this innovative, engaging model substantially closes the achievement gap and improves outcomes for students in low-performing schools. If the evaluation results substantiate this hypothesis, the products and processes created by this project will provide many immediate resources communities will need to get started on their own.

Technology-driven access. While the expense of teaching artists is cost prohibitive for many schools beyond brief, short-term experiences, for rural districts that lack proximal access to a broad selection of artists, the problem is much more severe and daunting. Of great significance, this project provides promise for culturally isolated schools, in both the urban and rural context, by creating high-quality, digital teaching and learning materials that scaffold arts integration effectively based on established research-based practices. Video vignettes of professional role models that layer domain-specific learning and exposure to a specific discipline has shown promise for scaling up the ability of volunteer professionals to reach a larger audience (Ware & Stein, 2013). Based on examples in STEM domains, such as the Curiosity Machine developed by Iridescent Learning (iridescentlearning.org), this model will build a bank of professionally made video shorts of art specialists sharing compelling aspects about their work aimed specifically for a diverse audience of middle school students and teachers. These videos will include follow-up exercises, discussion questions, prompts, and additional resources to engage students further in their inquiry in the classroom. An innovation to extant examples in the domain of arts education, this model will prompt students to learn about the artist and discipline

before meeting them in person during their 6-week residence immersion. A constructivist approach, this model utilizes the broad spectrum of insight that professionals in the field can offer to not only enhance the actual residency experience, but also expose students to applications in their own community as well as the world beyond their local setting.

According to a study in 2005, half of all teens have created media content and roughly one-third of teens have shared their own original content (Lenhardt & Madden, 2005). Arts integration holds special potential for activating student engagement through increased affiliation, expression, collaboration, and circulation, in-person and online. This project tackles the participation gap experienced in high poverty schools today by tapping into the compelling draw that 21st century skills and technological creativity have for youth. Within the design of this project, disadvantaged students will participate and take an active role by creating and contributing through their own e-portfolio. Modeled after social media platforms and ubiquitous youtube, this infrastructure will allow students to generate a digital portfolio of their work across disciplines. Deepening ownership of their work, students will contribute finished products to the digital resource bank created by professional art specialists and provide the next group of students exemplars to work from. To expose students to the creativity and mathematic ingenuity that goes into software design, local software developer, Jeff Tunnell of Spotkin will co-develop an ArtCore module on the design of apps alongside math and science teachers. Technology innovation for the classroom experience is the backbone to this proposed model.

Generalizability of results. The demographics of Oregon schools provide an additional quality of significance to this project. Participating schools were not only selected for this project due to student need and teacher enthusiasm, but also to provide a degree of generalizability to both an urban and rural setting. After continuous budget shortfalls during the past five years, most Oregon school districts have resorted to imposing furlough days to cover gaps, thereby

shortening the school year for most Lane County districts. With a per student budget of about ~\$7,500 across the participating schools, the development and prototyping of this model in middle schools facing drastic budget cuts will provide meaningful insights into future scale-up and replication for districts with few resources to draw on for implementation and evaluation of innovative approaches. By implementing the project in high-poverty schools with very different levels of student diversity and community composition, this project will also provide an understanding of how different school settings embrace and own the work of integrating arts across the curriculum. With a comprehensive evaluation plan that investigates changes in teacher practices and behavior, student academic achievement, engagement, motivation, and attitude, as well as school indicators of success, the results from this project will contribute substantially to the current literature base of effective school-wide arts integrated models. Lastly, the products, processes, and techniques created in this project will be disseminated aggressively to ensure that schools interested in replication understand the critical pieces of the model that make it a whole.

3. PROJECT DESIGN

Objective 1: To reach 1,900 students, the combined enrollment of ArtCore schools, and increase their achievement in mathematics and reading through participation in the ArtCore model.

Objective 2: To increase student self-efficacy, growth-oriented mindset, persistence, creative dispositions, and 21st century skills for participants in the ArtCore model.

Objective 3: To reach 45 middle school teachers and increase their ability to design, create, and deliver engaging, vertically-aligned, standards-based arts integrated curriculum through the ArtCore model.

Objective 4: To effect positive school-wide improvements in truancy, frequency of office referrals, achievement gap, and cross-disciplinary collaboration of teachers.

Illustrated in the logic model on the following page, this project design included the innovative input of numerous partners working together to bring this proposal to life for Lane County, Oregon. These partners include: Springfield School District #19; Lane Education Service District; Lane Arts Council; Eugene 4J School District; Network Charter School; Bethel School District; Junction City School District; Arts and Administration Program, Media Arts Institute, and the Institute for Global and Online Education at the University of Oregon; Young Audiences; Abacus Research, LLC, and the Arts and Academics Academy in Springfield, Oregon. With a focus on the objectives listed earlier, the project design also incorporates substantial input from art specialists, expert trainers, and strategic thinkers who will continue to provide support throughout the life of the project through the ArtCore Advisory Committee. The implementation plan aims at a whole-school transformation by referring to a foundation of research-based practices in teaching, learning, processes for sustained systemic change, and a new understanding of how to nurture creativity, imagination, and positive risk-taking in both students and teachers. The design draws on extensive experience within the collaborative design team to balance high expectations and objectives with a thoughtful approach to the realities of the current initiative overload that struggling schools suffer from as well as the need for accountability and evaluation that provides ongoing feedback for improvement.

Motivational factors to learning and achievement. As Table 2 on page 10 illustrates, a research base with important overlapping features informs the design of the framework and the processes of the ArtCore model design and implementation. The model identifies the motivational factors that extensive research in psychology and breakthroughs in cognitive science indicate are critical to becoming an avid and successful learner (Bandura, 2006; Duckworth, 2007; Dweck, 2006; Oyserman, 2004). These factors – self-efficacy, grit and perseverance, mindset, and concept of future selves – are themselves constructs of growing

ArtCore Logic Model



Table 2 *Research-based Framework for ArtCore Model Concept and Design*

<i>Research & Constructs</i>	<i>Critical Components & Emphasis</i>	<i>Applied to ArtCore Dimensions</i>
Visual Thinking Strategies (Housen, 2002)	3 Questions: What’s going on in the picture? What do you see that makes you say that? What more can we find?	Applied throughout ArtCore modules in teacher-facilitated discussion about works of art, literature, and other domains
8 Studio Habits of Mind (Hetland, 2007)	Develop Craft, Engage & Persist, Stretch & Explore	Art Specialist Immersion (Appendix B.1 for module details)
	Envision, Express, Observe, Reflect	Practice & Demonstration
	Understand Art World	Foundations of Art Discipline & Discipline in Context
5 Creative Dispositions – formative assessment for creative-mindedness, see Figure 1 (Lucas et al., 2013)	Inquisitiveness, Persistence, Imagination, Collaboration, Discipline	Teacher PD to learn vernacular and technique for identifying and articulating creative growth
	4-part Scale: Awakening, Accelerating, Advancer, Adept	Students monitor their own progress and provide peers with feedback using a common, precise vernacular Teachers and peers provide feedback using specific verbiage of the 5 Dispositions
Mindset, Grit, and Motivation (Duckworth, 2007; Dweck, 2006)	Fixed vs. Growth Mindset	PD for teachers and art specialists
	Effort vs. Innate Ability	Framework for motivational factors reinforced via modules
	Imagination of Future Self	Exposure to new career pathways
Four Keys to College & Career Readiness (Conley, 2014)	Key Cognitive Strategies	Research, interpretation, communication, & precision
	Key Content Knowledge	Key terms, linking ideas, organizing concepts, challenge level, & effort
	Key Learning Skills and Techniques – self-efficacy	Ownership of Learning: goal setting, locus of control, motivation, progress monitoring, collaborative learning, & technology
Effective System of Professional Learning and School-wide Supports to transform (Darling-Hammond, 2010; Sugai & Horner, 2002)	Long-term, intensive professional learning opportunities	>80 hours of embedded PD over 6-12 months
	Peer observations and shared resources between colleagues	Co-teaching with art specialists, classroom observations, and ArtCore online resource hub
	Project-based, technology-supported curriculum; current understanding of successful school-wide initiatives	Student e-portfolios in ObaWorld, tech-infused ArtCore modules on 3D and software design, and multimedia presentations

importance in the field of education and have been measured reliably by researchers and practitioners; they are also critical to learning and creation in the arts. Reciprocal by nature, these factors can be integrated into an arts integration model through professional learning opportunities, curricular materials, a school-wide unifying framework, and the deliberate incorporation of simple approaches to feedback and communication outlined by experts of each construct. For instance, research has shown that by simply changing the way a teacher compliments a student can have an impact over time (Dweck, 2006). By replacing “Good job you’re so smart” with “You worked hard. You’re getting smarter!” a teacher impacts the mindset adoption that students take and effects what they attribute their success to – effort or innate ability. By making this paradigm shift in communication of feedback, the teacher emphasizes effort and progress rather than the notion that innate artistic ability, creativity, or intelligence is responsible – the fixed vs. growth mindset. Catteral and Pepler’s (2007) research demonstrates that learning through the arts develops self-efficacy, confidence, and a mindset geared towards growth. This model upholds these attributes as important attributes to measure alongside academic achievement.

According to Bandura (1997), self-efficacy is the belief in one’s ability to accomplish or attain a certain outcome through intended behaviors and actions. This belief influences motivation to achieve and perceptions of ability that extend beyond obstacles, failures, and challenging circumstances faced. Applied to students in the classroom, the development of self-efficacy plays an important role in learning and academic performance. Through this proposed model, art specialists will help cultivate a new discipline-specific self-efficacy through hands-on learning that challenges students to succeed beyond struggles. The self-efficacy that art specialists nurture will support students’ new confidence within the art discipline as they gain new skills and understanding. As research shows, this growing confidence has a cascading effect

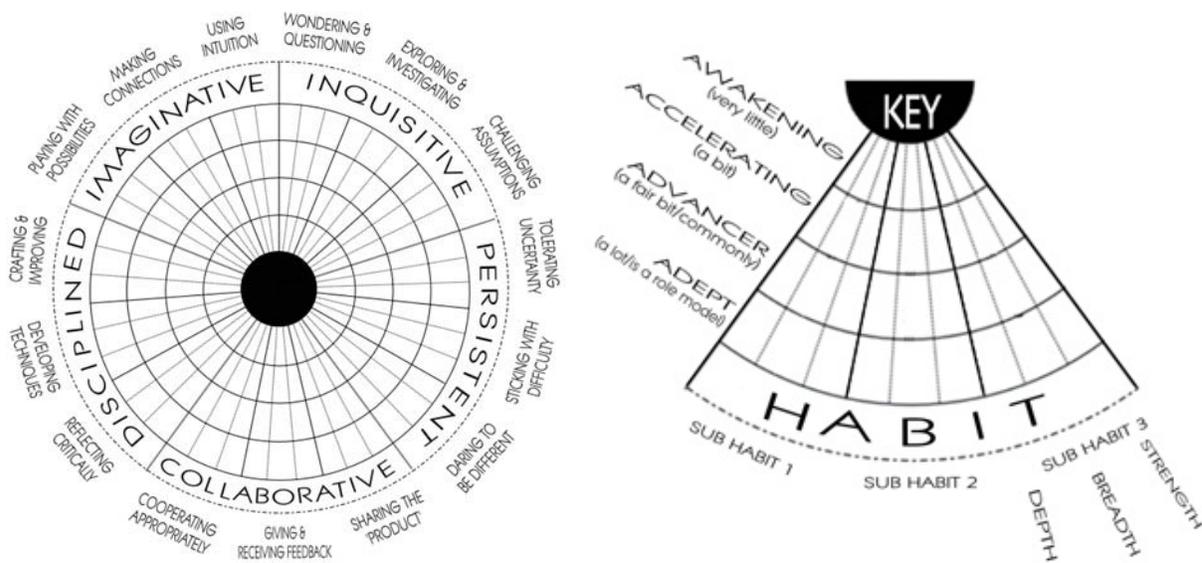
to other challenging academic areas. Vast research on self-efficacy indicates that a person's confidence in a perceived ability predicts success beyond the factor of actual ability level alone and ties this sense of self to persistence, a critical trait to long-term success (Bandura, 1994; Chemers et al., 2011; Schoff, 2006). Based on the expectancy-value theory, when students expect to succeed and believe their domain of interest has value, they will become more motivated to excel (Eccles & Wigfield, 2002). Through a gradual school-wide transformation, this model will reinforce the value of creative pursuits for students across coursework in the arts and academics.

Formative assessments and effective feedback. Another area of innovation is the use of a formative assessment tool developed by UK-based Creativity, Culture, and Education. The tool (see Figure 1 on the following page) was developed to explore how the monitoring of five creative dispositions and three sub-habits nested within each affected the value of creative-mindedness by both teachers and students in a classroom. In their field trial, the researchers found that after training and implementation, classes used a new vernacular to discuss creative work that articulated a shared understanding of individual progressions and made feedback more precise and enriching. Reciprocal with the motivational factors discussed earlier, clear progression levels within each of the 5 Creative Dispositions illuminated creativity as a learnable domain. Additionally, the organized and focused attention on creativity generated an empowering, cross-disciplinary approach within the community of practitioners as well as the community of learners that inevitably led to more planned opportunities for creative imagination. By incorporating this innovative tool in teacher training and curricular development, this project will make the nature of creative development for students explicit and growth-oriented.

The use of both the 5 Creative Dispositions growth assessment and specific language to cultivate a growth mindset touch on the critical importance of feedback to the success of

educational programs and methods. Based on several meta-analyses, Hattie (2009) emphasizes the conclusive evidence from a large body of experimental studies that the majority of effective programs included “heavy dollops of feedback” (p. 173). Somewhat counter-intuitive, Hattie’s research indicates that a reciprocal feedback loop from student to teacher and teacher to student holds the most promise. At $d = .73$ using Cohen’s effect size, the overall effect size for feedback is medium to high (Keppel & Wickens, 2004), and yet Hattie’s analysis found huge variance in the studies he analyzed depending on the type of feedback given. In fact, Hattie (2009) found that extrinsic rewards as a means of delivering feedback had a negative effect. The most effective feedback was found to be in the form of reinforcement through cues that target learning goals rather than provide praise; the effect of this feedback proved powerful. Based on the in-depth analysis that Hattie provides, the proposed project includes a laser focus on developing feedback practices in arts integrated learning that use consistent precision to encourage the development of self-monitoring and self-evaluation on the part of students.

Figure 1 *The Five Creative Dispositions* (Lucas et al., 2013)



School-wide arts transformation. The participating schools in this proposed project have been involved with the development of the design of this model from the beginning. Leadership at the school and district level has committed the future direction of their schools, prioritizing the implementation of this prototype model, not as consumers, but as active participants in its development and refinement over the course of this project. The proposed project aims at the development and dissemination of an arts integration model that leads to gradual and sustained transformation of school culture and practices. This project taps into the effective strategies applied to the planning and implementation of school-wide PBIS systems – common vernacular and process used to provide feedback to students. As McIntosh et al. (2010) describe, the long-term sustainability of school-wide shift in practice pivots on four factors that sustain fidelity of implementation: priority, effectiveness, efficiency, and continuous regeneration. In parallel fashion to the PBIS program, the distal outcomes for this model of arts integration are increased student engagement in and ownership of learning and a school-wide culture that recognizes, nurtures, and values creativity, innovation, and positive risk-taking.

Research across thousands of schools implementing PBIS school-wide found the major lynchpin of sustained longevity of PBIS to be effective administrator and school team leadership (McIntosh et al., 2010). Based on the lessons gleaned from the success of the PBIS initiative and the parallel aims and outcomes, this project will tap into the local expertise of Dr. Rob Horner, one of the original creators of the PBIS program, through his participation on the project's Advisory Committee. The focus on school-wide implementation rather than a class-by-class model stems from results gleaned from several quasi-experimental research designs that studied the effect of arts integration. Upon evaluating arts integration school reform programs on low-performing schools in Jefferson County, Kentucky (*the Different Ways of Knowing Model*) and across Mississippi (*the Mississippi Whole School Initiative*), researchers found that higher levels

of implementation proved to be the key in measurable impact on academics (Munoz, Ross, & McDonald, 2007; Corbett, Wilson, & Morse, 2003). The research also found that previously struggling students found new confidence in their ability in the arts and successfully transferred this self-efficacy to academic domains (Corbett et al., 2003).

This project is grounded in practices that focus on student-centered instruction, meta-cognitive learning skills, and social interactions in a collaborative and challenging learning environment. Such characteristics provide a foundation for stimulating engagement to explore meaning through the mastery of concepts, art disciplines, and academic content areas in a blended format (Rabkin, Reynolds, Hedberg, & Shelby, 2011). These aspects of instruction and collaboration are a key part of successful arts integration models that valid and reliable research studies have proven to show effective, including the *Oklahoma A+ Schools* program and the *Mississippi Whole School Initiative* (Barry, 2010; Corbett et al., 2003). Incorporating the science of motivation and brain development, the ArtCore model thoughtfully creates opportunities that cater to individual student interests and learning styles while cultivating analytical, evaluative, and reflective skills that research has shown transfer across artistic and academic domains (Winner & Hetland, 2008). Through a year of observations, Winner and Hetland's study (2008) found that art classrooms effectively cultivated skills (e.g. willingness to experiment and learn from mistakes and self-criticism) that expert David Conley (2014) indicates are critical to college and career readiness but often neglected in the narrowed curriculum of many schools, especially the lowest-performing. Across meta-analyses of validated studies, hands-on, challenging creative experiences have a strong effect size on a variety of student learning outcomes (Hattie, 2009). In a group of Arizona middle schools, researchers found that creative teaching and learning led to significant improvements in math and reading achievement for the most struggling students in a

group. Yet, they also found that creative teaching strategies were most rare in the classrooms serving the most diverse, disadvantaged students (Schacter, Thum, & Zifkin, 2006).

The proposed model includes these research-based strategies explicitly by making the collaborative co-teaching experience a multi-year interactivity between art specialist and classroom teacher to evolve the practice and efficacy of both. Students will benefit from this collaboration through an expanded artist-in-residence model. For weeks before and after the actual residence, students and teachers will deepen their understanding, skill, and affinity to the discipline through a variety of formats, inquiry, and exposure. Based on the evaluations of other well-established artist-in-residence models, such as the Right Brain Initiative and the Center for Community Arts Partnerships, this model builds from suggested improvements by using innovative technology platforms and a framework for standards and strategies alignment (see example in Table 3 below) to deepen and sustain arts integration across domains (Rabkin, Reynolds, Hedberg & Shelby, 2011; Wolf, 2010).

Table 3 *Sample Standards Crosswalk in ArtCore Module for 7th Grade Science and Ceramics*

<i>Standard</i>	<i>Essential Questions</i>	<i>Standard Details</i>
CCSS EL-Literacy RST 6.8-8	What can we learn about the properties and composition of various ceramic materials?	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
Next Gen. Science Standards MS-PS1	How would we describe the atomic composition of ceramic materials? How do they change when thermal energy is added or removed?	<i>Matter and its Interactions:</i> Develop models to describe the atomic composition of simple molecules and extended structures; analyze and interpret data; make predictions to describe changes in particle state; design a project
NSEA grade 5-8, visual arts Standard # 4	How have people used ceramics in different cultures throughout history? How do the materials reflect place?	<i>Understanding the visual arts in relation to history and cultures:</i> students know and compare characteristics of artwork from various eras; analyze how factors of time and place influence characteristics.

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.
(The Kennedy Center, 2014)

The research-based ArtCore model design. The ArtCore model begins with the Kennedy Center definition for arts integration and then emerges from a variety of design considerations and critical factors from current research. The firmly rooted arts partnership in Lane County, Oregon is a critical component to the design and successful implementation of this project. The design expands the artist-in-residence concept into an immersive professional learning experience for educators as well as a long-term investigation for students. With a gradual progression to whole-school implementation, this project looks to other successful transformative programs, such as PBIS, to establish a common language and approach across content areas and to solidify cross-disciplinary teaching and learning as the norm. Technology-supported professional learning opportunities generate supports for students and teachers with just-in-time feedback and resources that encourage both groups to continually take risks and innovate art integration across the curriculum. Continuous progress-monitoring of student achievement in math and reading provides feedback on the arts integration strategies. Technological innovations, such as e-portfolios, video vignettes from the field, and app design learning modules, builds and archives a student's body of work, connects them with diverse professionals, and stimulates creative ventures.

Across professional learning opportunities, the ArtCore design incorporates recent insights about malleable factors that current research indicates are critical to the development of *whole* individuals, including self-efficacy, motivation, and persistence, among others. The research-based technique of Visual Thinking Strategies (VTS) will help facilitate a student-centered approach to teaching and learning. The ArtCore design innovates from recent alignment

by the College Board between the National Core Arts Standards Conceptual Framework (NCASCF) and the CCSS to ensure students are building the skills they need to be successful (Charleroy, 2012). Finally, this design stems from extensive research, expertise, and documented successes in the field of arts integration practices. It is designed with a continual improvement process to allow new models, research, and innovations to inform ongoing development.

The ArtCore Framework (see Figure 2 below) expands from this definition by centering the model on intensive, ongoing professional development to cultivate creative, dynamic, and experimental practitioners. Briana Linden of Young Audiences, the lead trainer for this project (see section 4 on page 35 for bio), brings extensive experience training art specialists in effective teaching practices, supporting academic core teachers in the process of integrating arts into their CCSS-aligned curriculum, and developing meaningful artist-in-residence programs.

Collaborative training and curriculum design involving project leadership, classroom teachers, and art specialists stems from the research conducted by NORC at the University of Chicago. The evaluation reports that teaching artists bring a focus for students on process, technique, discipline, and the development of their unique *voice* – these contributions will be made central to the art specialist role (Rabkin, Reynolds, Hedberg, & Shelby, 2011).

To prepare arts integration for long-term impact, the ArtCore model will embed professional learning exchange between art specialists and teachers throughout stages of planning, implementation, and reflection. As California educator, Debra Koppman, describes, the cultivation of interest and skill in both *students* and *teachers* is a critical first step and best accomplished with the presence of teaching artists in the classroom. Based on her experience transforming an urban elementary school into a fully realized arts integrated model, Koppman shares that continual professional learning for teachers is the lynchpin and that time, space, and freedom to take risks is critical for arts integration to evolve across the curriculum (Donahue &

Stuart, 2010). This immersion stretches the impact of the artist-in-residence experience far beyond the six weeks of in-person contact and ingrains new teacher and student practice far deeper than the single art discipline explored in that one residence. The 3-week component will challenge students' understanding of the academic concepts and art discipline through independent practice, demonstration, and reflection.

To accelerate fragmented arts integration towards a comprehensive, sustainable, and cohesive school-wide transformation, the ArtCore model will apply a phase-in approach over four years. This process will include extensive community involvement, school and district leadership, and technology to build infrastructure that will outlast grant funding and ensure iterative refinement contextualized to each community over the long-term. The design of this model stems from the well-documented successes and challenges published by Donahue and Stuart (2010), DeMoss and Morris (2002), Fiske (1999), and the quasi-experimental studies discussed previously, as well as recent contributions to the field, such as Nobori's (2014) reporting on the transformation of Bates Middle School in Annapolis, Maryland at edutopia.com, a hub of educational innovations. A cornerstone of this model, the use of technology will build a network of practitioners across ArtCore schools in collaboration with art specialists from the local community and beyond. Digital media will capture art specialists in action both immersed in the classroom with students and in their studio with their craft to build a permanent resource hub of curricular supports and materials that integrate the academic core and a variety of art disciplines for optimal student engagement in middle school.

ArtCore in Lane County. In part, this model emerges from local collaboration over the past five years between three rural Lane County middle schools, including one of the proposed ArtCore prototype sites, through a 21st Century Community Learning Center (21st CCLC) program. Lane Arts Council collaborated with Lane Education Service District to design and

implement out-of-school-time arts integrated learning across language arts, science, and math. At Oaklea Middle School in Junction City, classroom teachers worked with artists to develop and teach these after school programs. The arts integrated approach began to residually impact the classroom experience during the school day in pockets. With the 21st CCLC funding gone, Oaklea teachers and school leaders are eager to keep the momentum going for their students. ArtCore will provide the model framework and resources for Oaklea Middle School to move towards school-wide transformation.

The *art specialist* role will be filled by a wide range of individuals, including but not limited to: traditional teaching artists across art disciplines, school-based art teachers, visiting artists, architects, graphic designers, software developers, scientists, and writers. The digital media resources will include extant resources as well as new high-quality five-minute video vignettes that portray art specialists in their element discussing a wide range of perspectives, tips of the trade, and successes and failures to relate directly to the specific traits of growth-oriented mindset, motivation, and grit that ArtCore aims to cultivate and monitor as students explore, demonstrate, and reflect. Table 4 on the following page explores the framework for how these video vignettes of art specialists expose students and teachers to authentic perspectives and reinforce the skills and mindset that ArtCore builds upon.

Participating teachers and students will both have the opportunity to generate their own questions for these videos and even take responsibility for different parts of the cinematography and production under the guidance of Ed Madison, the videographer at Media Arts Institute at the University of Oregon. These resources will be accessible to the community of practitioners using the online learning platform, ObaWorld, developed, customized, and maintained by the Institute for Global and Online Education at the University of Oregon (obaworld.net). This safe and secure platform will provide a space to organize, document, and archive the collaborative

ArtCore teaching and learning material and student learning processes and products to support ongoing reflection and refinement. Developed as an open source, customizable tool for students and teachers alike to innovate and share new learning experiences, ObaWorld will provide an ideal, flexible interface for students, art specialists, and classroom teachers to collaborate across ArtCore sites and stimulate new insights and feedback in a continuous cycle of improvement.

Table 4 *Art Specialists Video Vignette Sample Settings, Topics, and Questions and Responses*

<i>Settings</i>	<i>Topics</i>	<i>Questions Posed to Art Specialists</i>
Pottery studio	Equipment, techniques, and a recent challenge	What is the most beautiful “mistake” you have ever made?
Art gallery	The art business, relationships, and entrepreneurship	How do you know when you have found a really special piece of art to sell or artist to work with?
Classroom immersion	Teaching the craft, inspired by students	Why do you choose to teach your craft? What is the most teaching memorable experience? How does teaching shape your own art?
Where the artist goes for creative inspiration	Insight, failure, personal growth, and reflection	Why is failure so important to your work? Are your pieces ever really <i>finished</i> ? What helps you cope when you are <i>stuck</i> creatively on a really hard problem?
In nature	Art in nature and ephemeral quality of art and making art	When has the natural world impacted your work? How is nature a good metaphor for art?
In the lab	Role of art in science; importance of creativity to problem solving	As a scientist, do you consider yourself an artist in any way? Do you have any creative hobbies? Does being an artist helps you as a scientist?
At work in the field	Public sculpture installation, form vs. function in field of architecture	Who do you create your work for? What do you hope your art does for the world? Do you feel that art can promote social justice? What would the world be like without art?
The artistry of software design	The intersection of programming, design, and art in technology	As a developer, what challenges require the most creativity? Do you consider yourself an artist? In your work, what do you use more, math or creativity?

In ObaWorld, students will begin constructing an e-portfolio in sixth grade that will follow them through their middle school years and support their transition to high school and beyond. These e-portfolios will archive demonstrations and samples of student skills, creativity, and knowledge, explore college and career pathways that integrate the arts, and familiarize students with the 4 Keys to College and Career Readiness developed by Dr. David Conley at the Education Policy Improvement Center. Conley frames the Key Cognitive Strategies of problem formulation, research, interpretation, communication, and precision/accuracy as critical for college and career success, but they also align with arts integration (Conley, 2014). The ArtCore model capitalizes on the natural overlap of these strategic thinking skills, the NSAE, the CCSS, and the Studio Habits of Mind and builds a progression of arts integrated learning experiences outlined in the ArtCore module framework (see Appendix B.1 for framework and samples).

Prototype implementation plan. The iterative prototyping of the ArtCore model across five different schools in four school districts will provide continual innovations shared across sites through face-to-face collaboration and virtual exchange. By prototyping at five sites and using a phase-in process, the project will immediately establish collaboration between middle school teachers and art specialists from disciplines within the visual and digital arts, dance, theater, and music. By launching into this wide range of disciplines from the beginning, the project taps into local expertise to naturally create more opportunities for interdisciplinary planning, instruction, and learning from the onset. During the first year of implementation, each middle school will establish an *ArtCore School Team* that includes core subject area teachers representing each grade level, a school administrator, a school-based art instructor, and other leaders in the school community. These ArtCore Teams will serve as the nucleus of innovation for long-term planning, vision, and evaluation to phase the model from a single grade level to

school-wide cohesion over the four years of the project. Table 5 provides a visual for the proposed implementation model. Each phase will be described in more detail.

Table 5 *Three Tiers of Intensity of Art Specialist Immersion for Each Grade Level*

<i>Grade level</i>	<i>Phase 1</i>	<i>Phase 2</i>	<i>Phase 3</i>	<i>Final Phase</i>
6 th grade	Tier 1	Tier 2	Tier 3	Tier 3
7 th grade	Observation only	Tier 1	Tier 2	Tier 3
8 th grade	Observation only	Observation only	Tier 1	Tier 2

ArtCore Phase 1. The first year of programmatic implementation will include only sixth grade teachers and 6th grade students at each of the five participating schools (the 7th grade at NCS will start in Phase 1 since they do not serve 6th graders). Each school’s ArtCore Teams and project leadership with extensive input from each school’s sixth grade faculty will select two art disciplines from the menu of options organized by Lane Arts Council staff. Over the course of five full days of intensive trainings and collaboration, beginning in the fall of 2014, the participating sixth grade teachers will work side-by-side with the art specialists involved in the art disciplines chosen to develop the twelve-week ArtCore sequence of arts integration. Together, they will infuse the disciplines across **at least 2 academic areas**, including math, English language arts, science, and social studies.

Table 6 *ArtCore Sample of Art Disciplines*

<i>Performance Arts</i>	<i>Visual Arts</i>
Hawaiian music and dance	Ceramics and fiber arts
Interactive theatre	Chinese brush painting
Latin American music	Mural painting
Latin dance	Native arts
Music, movement, rhythm & song	Fused glass

West African music and dance	Jewelry and functional art
Improvisation	Latin American sculpture
Mozart players	Architecture & 3D design
Instrument design and building	Mixed media and recycled art
Choreography	Portraiture on tile, mosaics, and ceramics
Brazilian Capoeira	Silk painting and watercolor
Spoken word	Web development & graphic design
Multimedia Production	Software app design
Photography	Advertising

In addition to these five days, the sixth grade teams will be provided 2 days of professional learning and collaboration release time during the fall to continue developing the ArtCore Module for the art disciplines chosen. As Nobori (2014) notes, time for collaboration and actual artistic creation were the two most valuable features that made arts integration stick for Bates Middle School. The ArtCore training series will be conducted by arts integration experts, Briana Linden and Deborah Brzoska, local to Oregon who work statewide and nationally to train educators, school leaders, and art specialists in processes directly inspired by Kennedy Center’s Changing Education Through the Arts (CETA) program. Additionally, a STEAM Curriculum Specialist, dedicated part-time to this project in year 1, and Kendra Coates from MindsetWorks© will provide additional trainings as Table 7 details below.

Illustrated in Appendix B.1, the ArtCore modules will be a process that frontloads learning with a foundational understanding, situates the art discipline in the local context, provides an immersion residency experience, and then allows time for students and teachers to complete their work in the discipline after the residency concludes. The modules built in *Phase 1* will include extensive original content developed collaboratively by the sixth grade teams, art specialists, and other contributing ArtCore partners. This content will branch off of a central

Power Point series created for each art discipline to establish the historical, sociocultural, and cross-disciplinary context of the specific art discipline. These presentations will align the learning objectives to the CCSS, NSAE, VTS, and skill development across the academic core.

Table 7 *Annual Trainings and Schedule for the ArtCore Model*

<i>Trainer</i>	<i># of Days and Term</i>	<i>Training Details</i>
Briana Linden	2 days in Fall; 1 day in Winter; 1 day in Spring	1. Introduction to arts integrated thinking and practice; the arts and the CCSS; hands on experience with the art discipline teachers have chosen; 2. Collaborative module design for standards-based creative classroom exploration; 3. Deepening practice with interactive demonstration of strategies; 4. Evaluating the first modules, refining collaborative design of the second.
Kendra Coates	1 day in Fall; 1 day in Spring	The foundations of teaching and learning with a growth mindset; implications of mindset work in arts integrated teaching; incorporation at different stages of module.
Dane Ramshaw	½ day in Fall; ½ day in Spring	Using ObaWorld for module development and feedback; video-conferencing between art specialists and classroom; using ObaWorld for assessments; assisting students in the development of e-portfolios.
Deborah Brzoska	1 day in Fall; 1 Day in Spring	Arts integration for school-wide transformation; Discussion of national case studies, successes and failures; Reflection on aspirations for ArtCore
STEAM Specialist & Project Leaders	1 Day in August, ½ day in Fall; ½ day in Winter; ½ day in Spring	Developing ArtCore School Team leadership; Using the 5 Creative Dispositions assessment with students; School-wide supports for ArtCore elements; Teacher-to-teacher observations of other sites; Evaluation Plan needs

Using Visual Thinking Strategies, the Power Point series will be engaging, interactive, cognitively challenging, and student-centered (Housen, 2002). The presentations will frame the intersection of the NSAE, NSACF, CCSS, and Next Generation Science Standards for each art discipline and grade level and reinforce the construction of new connections for each student, blending the art discipline and academic content areas. The ArtCore modules will pool local

resources and those found online to generate teaching and learning materials specific to each art discipline across the academic core. For example, teams might choose to replicate sample lesson plans published on edutopia.org by past AEMDD grantee, Bates Middle School, or browse sharemylessons.com for lessons contributed by The Center for Arts Education. Alternatively, ArtCore schools might seek guidance from the local project-based learning experts at Springfield, Oregon's Arts and Academics Academy (A3) Charter high school and use their integrated lessons and rubrics as models.

During Phase 1, the development of these modules as well as complementary video vignettes will take place in the Fall of 2014 under the direction of the ArtCore Project Management Team. This development phase will include efforts from the ArtCore community as a whole. This project will create the opportunity for faculty from the University of Oregon's Arts and Administration Program (AAD) to allow AAD undergraduate and graduate students to do their practicum by contributing to lesson planning, multimedia development, classroom instruction, classroom observations for the evaluation plan, and other opportunities that bridge their studies to the implementation of this model in practice. Julie Voelker-Morris on the AAD faculty will be the liaison to support these efforts and identify other resources that AAD can offer, such as possible time commitment from a Graduate Teaching Fellow. Video and production staff from the Media Arts Institute will support the planning, design, and execution of the first round of video vignettes of art specialists from the local community and beyond. These videos will tie into the art disciplines chosen for phase 1 and establish a mini-interview template as a map for future videos.

The first of these modules will roll-out during the January – March 2015 winter term at each middle school, with class time allocated across several planned content areas. As Figure 2 illustrates, the first two weeks of each module will be introductory in terms of integrated

content, skill exploration, interaction with art specialists, and foundational understanding of the selected art discipline. During these two weeks, students will begin to compile clarifying questions for the art specialist and refine their essential questions to drive their learning in the discipline. During the second week, sixth grade students will contact several participating art specialists in this domain, including the primary art specialists who will provide the 6-week immersion residence in the coming weeks. The students will use ObaWorld to pose questions and communicate with the art specialists using video chat features as well as asynchronous email and messaging features. Though still a nascent field with a limited research base, e-mentoring using email communication as the primary means of exchange showed promising results for increasing academic interest and intentions in the STEM fields for female students in a randomized experimental research design (Stoeger, Duan, Schiner, Greindi, & Ziegler, 2013). The ArtCore model builds off this evidence to explore how virtual connections with art specialists can support longer-term engagement in the discipline for students.

The introductory portion of the ArtCore module sets the stage and prepares both the classroom teacher and art specialist for a truly collaborative co-teaching experience. Students will become well versed in the background, context, and technical knowledge of the discipline, maximizing the impact of the six weeks of contact with the art specialist and their specific medium. By becoming more keenly aware of how the art discipline interacts with the world around them, students will also begin to recognize the art discipline at work in their community drawing connections between professions and the arts that had never before been linked for them. The classroom teachers will have invested substantial instructional time to construct knowledge and perspective around the discipline for their classes. Therefore, they will remain fully engaged during the six weeks of the artist residency, avoiding the tendency of limited teacher involvement during artist residencies documented by researchers (Rabkin et al., 2011).

With substantial pre-program collaborative planning during the module development phase in the fall, the six-week *studio-to-school immersion* will be framed by learning objectives and processes for progress monitoring and summative evaluation using assessments built for the modules. The CCSS-aligned easyCBM© assessment in math and reading will be used for evaluation purposes as well. Two sample weekly progressions of the Art Specialist Immersion are described in more detail in Appendix B.1. Upon completion of the residence, students will continue to work on individual or group demonstrations within the discipline. During Phase 1, classroom teachers will provide class time during the following three weeks to provide students the time and attention needed to continue developing their skill, demonstration, or project development in the art discipline. For support and guidance, students will use their ObaWorld e-portfolios to receive feedback from art specialists as well as peers in their class and from other ArtCore sites.

Another important feature of this first phase of the iterative prototype, the whole school will develop a “unifying framework” that will become the bridge for every aspect of the teaching and learning experience at the school (Nathan, 2009, p. 13). Linda Nathan notes that the importance of this step in school-wide cohesion cannot be overstated. Adapted from the framework initiated by Nathan at the Boston Arts Academy and with support from ArtCore Advisory Committee member, Michelle Swanson, the A3 Charter School created their own framework – *Explore Design Create Refine Own or EDCRO*. With coaching from A3 staff, the Art Team at each ArtCore school will develop their own framework based on shared values and the unique character of the school community. This unifying framework will become part of the normative vernacular at the school as a reminder to students and educators of the purpose and evolution of their learning and growth. As art specialists become immersed in the school community, this unifying framework will provide another path to reinforce mindset and goals.

Based on the successes and challenges of this first module implementation, ArtCore project leadership as well as school-based ArtCore Teams will make adjustments to the second ArtCore module in the spring term of year 1. Sixth grade teachers will visit the other participating schools and classrooms to continue to grow the ArtCore Professional Learning Support (APLs) exchange. Seventh and eighth grade teachers at each school, who have yet to experience the ArtCore training and modules, will visit and observe sixth grade classrooms during different segments of the ArtCore module. These observations will begin to build the foundation for phase 2 expansion. The analysis of student work samples will be a critical part of the ArtCore model articulation and refinement and professional growth within the grade level APLs that take shape. In fact, sample student work will be a critical piece of ArtCore trainings in the next phases of the ArtCore model.

ArtCore Phase 2. As an iterative prototype, the next stage of implementation of the ArtCore model will expand to 15 seventh grade teachers across participating schools and begin to solidify the arts integration model for sixth graders with less emphasis on direct inputs from partners and art specialists. Sixth grade teachers and the school-based ArtCore Teams will mentor the seventh grade teachers at each school in preparation for the full series of ArtCore training with arts integration experts during the fall of year 2. As in phase 1, seventh grade teachers, school-based ArtCore Teams, and ArtCore project leadership will select an art discipline from the menu of options listed in Table 6 on page 22. Under the guidance of ArtCore project leadership and with input from seventh grade teacher teams and project partners, the segments of five new modules will be developed during the fall of year 2. Grade sixth teachers, in their second year of ArtCore implementation, can repeat the modules they used in year 1 or can choose from the eight other phase 1 modules developed and implemented at the other ArtCore sites, expanding their skill set to emerge further as artists themselves.

In the winter and spring terms of year 2, this second phase of the ArtCore model for seventh grade teachers will follow the same sequence as phase 1 implementation for sixth grade teachers at each participating school. The four segments of each module will undergo continual refinement and expansion as students, teachers, and art specialists add to the body of resources, work samples, lesson plans, community application, and sociocultural, historical, and cross-disciplinary contexts established for each discipline. The online learning platform, ObaWorld, will continue to organize and archive the ArtCore module development with inputs from the broad community of practitioners and learners.

Sixth Grade – Phase 2. During this *second tier* of module implementation (during phase 2 of implementation for the first cohort of 15 teachers trained), the sixth grade teachers will place less reliance on in-person co-teaching with art specialists. The objective of this second tier of module implementation is two-fold: 1) the ArtCore model needs to be financially stable while phasing into school-wide implementation with level resources from year-to-year, and 2) academic classroom teachers will need to depend on their growing knowledge and understanding of the art disciplines and take risks to lead the effort of integrating arts across the academic core. As the research indicates, the art specialist residency experience should be one of professional learning and growth for classroom teachers (Donahue & Stuart, 2010; Rabkin et al., 2011). After receiving over 50 hours of training, 40 hours of co-teaching, and an additional 8 hours of observing other classrooms in year one, teachers will move into this second tier of the ArtCore classroom experience with growing expertise, continual feedback, and additional co-teaching opportunities to continue this growth. As Table 8 describes on the following page, *Tier 2* will require more modeling, leadership, and resourcefulness on their own. In this second tier, art specialist interaction in the classroom will be almost entirely focused on specific skill

development for students and feedback for their production and efforts. Using ObaWorld, students will continue to communicate virtually with synchronous video chat and email.

Table 8 *Tiers of Art Specialist Classroom Immersion and Collaboration with Classroom Teacher*

<i>Tier</i>	<i>Objective</i>	<i>Intensity and Involvement of Art Specialists (AS)</i>
Tier 1: Teachers in 1 st year	Art Specialist immersion	6-week immersion, 1 full day per week, pre-immersion introduction with AS, post-immersion feedback from AS
Tier 2: Teachers in 2 nd year	Collaboration & skill development	2-3 visits with AS during 6-week student inquiry into art discipline; continue collaborative module development
Tier 3: Teachers in 3 rd year	Strategic engagement & feedback from AS	More dependence on modules and the skill of classroom teacher; 1 visit and 3 videoconferences with art specialist; integration of new practices across curricula

Eighth Grade – Phase 3. In preparation for full implementation in year 3, the third phase will begin in year 2 with professional learning experiences for eighth grade teachers including: classroom visits, co-teaching opportunities, and training sessions from school-based Art Teams and other trained ArtCore staff. The eighth grade cohort of teachers will participate in the full series of *Tier 1* ArtCore training and module development series during the fall of year 3.

Seventh Grade – Phase 3. As a new set of modules are developed in the fall for the eighth grade, seventh grade teachers will enter *Tier 2* of ArtCore module implementation with less intensive input from art specialists. Like sixth grade teachers in year 2, this phase will require a greater reliance on the collaboration across content areas and sites using the APLs networking opportunities and ObaWorld platform.

Sixth Grade – Phase 3. Sixth grade teachers will enter the third tier of module implementation, incorporating co-teaching and classroom interaction with art specialists less frequently as they work towards sustainability. They will be developing more long-term development of student projects and innovate across disciplines to challenge themselves.

ArtCore Final Phase. By the end of year 3, each grade level will have implemented at least two of the ArtCore modules incorporating all core academic teachers. The project will have developed 30 modules across a variety of disciplines in the visual, digital, and performing arts and have reached over 1,900 students. After three years of training, innovation, and promising results, at least 15 sixth grade leaders will begin to implement ArtCore modules continuously throughout year 4, extending each Module's curricular reach even further. They will incorporate art specialists strategically with limited funding supports from the AEMDD grant. Moving into the second and third tiers, respectively, at least 15 eighth grade teachers and 15 seventh grade teachers will exchange across grade levels and sites using the APLs exchange, integrating art specialists less often and more strategically. ArtCore Teachers will use the CCSS to vertically align the modules from sixth to eighth grade and deepen the school-wide transformation. In total, at least 45 will have gone through the module training and development. Additional teachers in each grade level who did not yet experience the *Tier 1* training and module development will receive the full training series in year 4. Classroom teachers will utilize and contribute to the ArtCore resources organized on ObaWorld and exchange across sites at the APLs Institute.

This final phase of the ArtCore model development will also culminate in organized action at the district leadership level to initiate plans for longevity and replication at new sites. Buttressing these efforts with promising causal inferences for academic achievement growth, the robust evaluation plan, conducted by expert evaluation researcher, Dr. Keith Smolkowski, will mobilize district leadership and provide insights into the critical factors for success to assist wider dissemination and replication. Throughout the multiple iterative phases, the ArtCore Management Team will consult with Deborah Brzoska for feedback on effective practices and models nationally to help refine and expand the ArtCore model as it grows and innovates.

In the fourth year, art specialists will still remain involved in the full articulation of the arts across academic disciplines. Art specialists will still provide immersion experiences, the critical community context, and targeted feedback to students at key points in their learning and exhibition of knowledge and skill. The design of the fourth year will take an equitable approach so that additional teachers across participating schools have the full ArtCore *Tier 1* professional growth experience. The ArtCore model, in this final phase of intensive resource inputs, will learn from the refined practices at the A3 Charter School locally and other models nationally to integrate community resources into a fully articulated self-sustaining arts integration educational environment. By demonstrating the process taken at each school to arrive at their unique interpretation and implementation of the ArtCore model, the project will provide the means for project partners to organize the phase-in approach for immediate replication elsewhere in Lane County, Oregon and beyond. As this proposed project builds from enthusiasm of participating schools and a growing capacity of Lane Arts Council to reach more schools with the matching and coordination of teaching artists, the sustainability of these efforts and the potential for expansion within the participating districts will be a prioritized concern for project leadership.

4. PROJECT PERSONNEL

The key personnel involved in this project are outlined below in Table 9 below. They each bring unique qualities and experience that merge into a very capable project leadership team with guidance from an expert panel on the Advisory Committee. Listed with detailed biographical sketches in Appendix B.3 the ArtCore Advisory Committee is composed of experts whose experience aligns intentionally with particular aspects of the model framework. The Advisory Committee members include: Dr. Robert Horner, Michelle Swanson, Dr. Yong Zhao, Dr. Michael Bullis, Michael Fisher, and Sarah Collins Lench. The lead partners, Springfield School District #19, Lane ESD, and Lane Arts Council uphold strong policies that encourage

employment applications from members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. In fact, it is a prioritized initiative for all three organizations to recruit and retain diverse administrators, teachers, teaching artists, and other staff who reflect the diversity of students and the community for which they serve.

Diverse art specialists such as teaching artists, Samuel Becerra from Mexico and Alseny Yansane from West Africa, will be engaged, recruited, and retained to benefit all students.

Table 9 Key Project Personnel

<p>Ross Anderson <i>Project Director</i> Lane Education Service District (Lane ESD)</p>	<p>Ross Anderson brings over seven years of project leadership experience at the school district level. From 2007 to 2013, as the Director of Strategic Initiatives for Norwich Public Schools in Norwich, CT, he designed, managed, and evaluated over \$6 million in grant-funded programs and initiatives across a district of 4,000 students. Most recently as the lead grant writer and evaluation specialist for Lane Education Service District representing over 40,000 students, Mr. Anderson has brought in \$500K in grant awards in the past nine months and has provided strategic implementation and evaluation support for each. In the extensive after-school and in-school initiatives that Mr. Anderson has overseen, he has worked with numerous art specialists and classroom teachers across almost every art discipline to create long-term, meaningful art integrated learning experiences for K-8 at risk students. Mr. Anderson documented results from these programs and provided quantitative empirical evidence of improved academic achievement for long-term participants that surpassed the growth of a comparison group of similar peers who did not participate. Mr. Anderson shared this evidence and the strategies used in these programs at state and national conferences. By developing strong trust and transparency with funders and posting promising results for student outcomes, Mr. Anderson grew the programs every year from a \$120K budget in the first year to \$550K before leaving 6 years later to pursue his doctoral degree. Mr. Anderson received his B.A. in Architecture from Yale University and is currently a Ph.D. Student in the Department of Education Methodology, Policy, and Leadership at the University of Oregon.</p>
<p>Liora Sponko <i>Program Manager</i> Lane Arts Council (LAC)</p>	<p>Liora Sponko was named Executive Director of Lane Arts Council in March 2011 and comes to the Council with several years experience in nonprofit administration. Locally, Ms. Sponko worked for the Community Center for the Performing Arts/WOW Hall, Centro LatinoAmericano, Womenspace, and the University of Oregon. Ms. Sponko oversees the placement of over two dozen teaching artists in schools throughout Lane County. As a community leader in the arts across Lane County, Ms. Sponko will continually widen the net of involvement from diverse art</p>

specialists and other partners that can contribute meaningfully to the project. Ms. Sponko will play a key role in matching art specialists to the school and module development most appropriate to their strengths. As the lead community partner on this grant and sharing responsibility for a great deal of program coordination and oversight, Ms. Sponko's leadership experience in the Lane County arts community will be invaluable.

Lauren Suveges
*Program
Coordinator*
Lane Arts Council

Lauren Suveges joined Lane Arts Council in March 2014 as the Arts Education Program Manager. Most recently, Ms. Suveges has worked for the International Society for Education in Technology supporting educators in online professional development and for the Jordan Schnitzer Museum of Art as a Museum Educator, both teaching and supporting in-school and out-of-school arts programming in Oregon. Lauren has received practicum and forum training in Visual Thinking Strategies and is well-versed in arts integration curriculum. Ms. Suveges earned a BA in Studio Arts from Otterbein University in Columbus, OH, and her MS in Arts and Administration, Community Arts Management from the University of Oregon with thesis research focusing on out-of-school time arts education and critical race theory. Lauren serves on the Board of Directors for the Materials Exchange Center for Community Arts (MECCA) and teaches an art and yoga class for kids at Freedom Yoga and Meditation.

Katy Vizdal
Program Assistant
Lane Arts Council

Katy Vizdal joined Lane Arts Council as the Program Assistant in January 2012. She works closely with the Executive Director to support her in fundraising, YouthArts, Community Arts Grants, outreach and workshop development. Ms. Vizdal comes to LAC with a strong background in music and arts administration, having previously worked as the Program Coordinator at the Urbana-Champaign Independent Media Center in Urbana, IL. Ms. Vizdal received her Bachelors of Arts in Music History at the University of Illinois at Urbana-Champaign. Ms. Vizdal's experience will be critical in coordinating module development, video production, and ObaWorld content management with staff from the Institute for Global and Online Education.

Keith Smolkowski,
Ph.D.
Lead Evaluator
Abacus Research,
LLC

Keith Smolkowski currently holds positions as Research Scientist at Oregon Research Institute and Research Methodologist for Abacus Research, LLC. He has 24 years of experience in education, social science, and public health research and has become an expert in the design and analysis of complex efficacy and effectiveness trials. His research experience covers a variety of topics, such as reading and mathematics instruction, child social behavior interventions, adolescent problem behavior and substance use, and the assessment of teachers and students. Dr. Smolkowski has served as project director, co-investigator, or methodologist on over 32 NIH and DOE grants and has co-authored 44 peer-reviewed articles and book chapters. He completed his M.S. in Decision Sciences and Ph.D. in Special Education. Dr. Smolkowski's expertise will be invaluable to the evaluation methodology and statistical

analysis for this project.

Briana Linden
*Lead Arts
Integration
Trainer*
Young Audiences

Briana Linden has worked in regional non-profits since 1997 including the Oregon Zoo, Portland Art Museum, Artists Repertory Theatre and Blue Sky/Oregon Center for the Photographic Arts; prior to that she was a preschool teacher. She brings almost 20 years as a leader, educator and teaching artist. As Teaching Artist Program Manager for The Right Brain Initiative, Mrs. Linden oversees a roster of the more than 50 artist and arts organizations who have partnered with Right Brain to collaborate with regional schools in bringing students arts-rich integrated learning experiences. Through professional development, coaching and other supports, Mrs. Linden works closely with Right Brain artists to develop teaching practices that bring the power and creativity of their art form to all kinds of learners. Drawing on the big ideas within the arts—backed by research as Habit of Minds, 21st Century Skills, Flow and others—Mrs. Linden demonstrates how creative approaches to teaching and learning not only give students the tools they need to be the leaders of tomorrow, but also the essential elements to make their own learning meaningful now. She brings expertise in arts integration for an audience of both teaching artists and classroom teachers with a focus on the CCSS.

Deborah Brzoska
*Training
Consultant*

Deborah Brzoska is a nationally recognized leader in arts education who has worked with schools and arts organizations internationally and in nearly all fifty states. She is a former dancer-choreographer as well as the founding principal of an award-winning arts-centered public school in Vancouver, Washington. Brzoska is a specialist in creative school reform and served as school designer for the Small Schools Project, funded by the Bill and Melinda Gates Foundation. A national teaching artist for The John F. Kennedy Center for the Performing Arts, Brzoska specializes in arts integration and assessment and in the professional development of teachers, school leaders and teaching artists. She has presented arts workshops, seminars and institutes from Cairo to Samoa, including a ten-year arts integration curriculum and research project for the State Department of Education in Hawaii. Deb has written about arts education for The Kennedy Center, Columbia College, the Arts Education Partnership and The College Board. Her role in this project will provide an expert lens on the development and implementation of the model. She will also work directly with the community of teachers and art specialists involved in the module development and delivery each year of the project.

Ed Madison
Video Production
Media Arts
Institute

Ed Madison has more than 30 years of professional media expertise, and also serves as executive producer on all of Media Arts Library's projects. His multi-faceted career began as a high school intern at the CBS television affiliate in Washington, D.C. during the Watergate scandal. Shortly after graduating from Emerson College in Boston he became a founding producer at CNN. His own subsequent companies have produced projects for most of the major networks, studios and record companies in

	Hollywood, including Paramount, MGM, Disney, CBS, ABC, Discovery Networks and A&E. He is president of Engaging Media , an Oregon-based media production and distribution company. Madison holds a Ph.D. from the School of Journalism and Communication, University of Oregon, where he teaches multimedia journalism and digital publishing.
Dane Ramshaw <i>ObaWorld Customization</i> Institute for Global and Online Education at University of Oregon	Dane is the designer and lead developer of Oba Learning Management System, ensuring best practice, global scalability, and security, for both a K12 platform, and a higher education platform. He was a leading technology associate for a research project on Student Voice in secondary schools. Dane has background in teaching, graphic design, educational pedagogy, and web development. Dane will not only play the lead role in customizing the user interface in ObaWorld for the participating middle school students, teachers, and art specialists, he will also support the creation of a module on web development and graphic design as an ArtCore experience for students and teachers.
Julie L Voelker-Morris <i>Project Liaison</i> University of Oregon, Department of Arts & Administration	An Instructor in the University of Oregon's Arts & Administration Program, Julie Voelker-Morris, has worked to explore ways in which the arts can be integrated in ways that build student equity and inclusion in general education studies and works toward creative justice education through her own instructional practice in connecting arts, gender, and cultural values. Mrs. Voelker-Morris teaches undergraduates in both digital and face-to-face settings. Her involvement in this project will provide a direct link from the middle school classroom to the university experience for undergraduate and graduate students interested in doing their practicum through this initiative.

5. MANAGEMENT PLAN

The design of the project management plan focuses on the objectives, activities, milestones, and responsible parties that will ensure the program objectives are achieved on time and within budget. The Management Team will take the lead on and be accountable for fulfilling the responsibilities outlined in the timeline (see Table 10 on the following page for details). The Management Team will include: the Project Director from Lane ESD, the Executive Director/Program Manager from LAC, the Program Coordinator from LAC, the External Evaluator, the ArtCore School Team Leader from each site, and other key administrators from the participating districts. This group will meet quarterly under the leadership of the Project

Director to: (a) review progress on timelines and milestones, (b) monitor budget, (c) revisit responsibilities of key staff, (d) identify challenges and successes in the implementation of the project plan, (e) review feedback on trainings and activities from art specialists and classroom teachers, (f) review quality of teaching and learning materials developed for the modules, (g) review of individual school plans for program module delivery, (h) review of student feedback and student work from the ArtCore module implementation, and (i) review of evaluation design and progress towards evaluation plan completion. The group will meet as frequently as needed during the first year to ensure adequate oversight and support.

Each school will form an ArtCore School Team to meet monthly to plan school-based implementation and training and provide ongoing feedback to project leadership. An ArtCore School Leader will receive a stipend from the project to take the lead on organizing the ArtCore School Team and maintain vigilance over the fidelity of implementation at the school level. These steering committees will include a classroom teacher from each grade level, a school administrator, an art specialist from the community, and other school community leaders, such as a member from the parent council.

Table 10 *Timeline, Milestones, and Responsibilities*

<i>Glossary: PMT: Project Management Team, PD: Project Director, PM: Program Manager, PC: Project Coordinator, ATL: ArtCore Team Leader, AT: ArtCore Team, EE: External Evaluator, ET: External Trainers, AS: Art Specialists, CT: Classroom Teachers, MAI: Media Arts Institute, DL: District Leaders</i>			
Objectives	Timeline	Milestones	Responsibility
Component 1: <i>Training and Collaborative ArtCore module development</i> requiring identification of art specialists, classroom teachers, ArtCore School Team members, full alignment of standards for each grade/school, and matching of art disciplines to school.			
Initiate Management Team and define responsibilities	Starting July 2014; quarterly 2014	Management team convenes to delegate responsibilities for project implementation needs; reviews	PD, PM, PC, ATL, EE, ET, DL

	- 2018	progress & makes recommendations	
Identify ArtCore Team members and Leader	Aug. 2014; changes as needed	District leadership recruits members providing details of 1-year commitment and responsibilities	DL, CT, PD
Provide ArtCore Teams a choice of disciplines & art specialists for module development	Oct. 2014; Feb. 2015, repeat each year with new cohort	First module development will start in Fall; second module development starts in winter/early spring; schedule trainings and initial video vignette recording sessions	PM, PC, CT, AS, MAI
Assess school needs and assets and initiate module development	Sept. – Nov. 2014; repeat each year of project	Management Team leaders conduct environment audit for needs and assets of each school; provide parent and staff info sessions	PMT, ATL, DL
Identify UO AAD students interested in supporting module development	Oct. 2014; repeat each terms all years	Project Liaison at University of Oregon in Arts and Administration Dept. recruits college students to be part of module development	PD, PM
Conduct first series of trainings and launch module development	Oct. – Dec. 2014; repeat each year with new grade level cohort	2-4 selected 6 th grade teachers from each school will participate in initial trainings with AS and ATL; new grade level cohort of teachers the following year	ET, PD, PM, ATL
Component 2: Conduct evaluation activities for formative feedback and collect baseline data through classroom observations of treatment and comparison schools, baseline data collection of students, and training satisfaction survey of teachers and art specialists.			
Conduct evaluation activities	Aug.- June 2014; repeat each year	PD and EE will develop a comprehensive evaluation plan and communicate to schools and partners	PD, EE
Formative evaluation of project's progress	Quarterly each year	PD and EE will collect, de-identify, clean, and organize data for ongoing analysis and reporting to PMT and Advisory Committee	PD, EE, DL
Component 3: Provide professional development and establish active ArtCore Professional Learning Supports (APLs) within and across prototype sites to enhance their experience and skill at integrating the arts across content areas and curriculum with standards-based instruction.			
Distributed training over the entire school	Oct., Nov., Dec., Jan., Apr., & Jun.	AS and CTs involved in each project phase will attend at least 90% of trainings provided. ArtCore Team	PD, PM, ET, AS, CT

year	each year	members will attend at least 80% of full range of trainings	
Non-project teachers at participating schools receive trainings in arts integration	Aug. 2015 Aug. 2016 Aug. 2017	2-day training for teachers who are not involved intensively with the ArtCore Module trainings, development, and implementation. 100% of teachers at each school receive some level of training & 50% attend semi-annual half-day ArtCore Teacher Institute	PD, PM, ET, AS, CT
Teachers and Art Specialists present their modules and student work	May 2015 May 2016 May 2017 May 2018	At least 80% of ArtCore module teachers present at an annual cross-site ArtCore Student Expo	PD, PM, PC, CT, AS
Art Specialists receive individualized trainings	Aug. 2014 - 2018	1-day training provides training in strong co-teaching practices, module development, video vignette designs	ET, PD, PM, PC, AS
Component 4: Create standards-based curricular modules and launch the 12-week arts integrated sequence with students including: video vignettes of art specialists, VTS with inquiry-based power point presentations, research projects, virtual exchange with artists, immersion residence, skills and technique development, practice, and demonstration.			
Collaborative module development	Aug. – Nov. 2014 & Jan. – Mar. 2015; repeat each year	Aligning arts standards with CCSS, AS and CTs will outline sequence for content, skill development, learning objectives, and assessment; MAI will develop videos with AS	AS, CT, MAI, PC, PM, PD
Students engage in ArtCore modules	Between Oct. – May each year of project	Approximately 650 students will receive modules in year 1. This will increase by 650 new students in year 2 and again by 650 in year 3 – sustained at 1,900 students in year 4.	PMT, PD, PM, CT, AS, DL, EE
Students will present work to parents and community through ObaWorld and at ArtCore Expo	May 2015 May 2016 May 2017 May 2018	At least 75% of students refine their products and document them on ObaWorld within their e-portfolio. Student products demonstrate clear alignment to standards	CT, AS, PC

As this is a newly articulated model based on successful partnerships locally as well as a broad research base, the commitment from schools to aggressively integrate the arts during the school day and throughout their curriculum has been established from all five participating schools and districts. The development of school-based ArtCore Teams that include a school administrator and an ArtCore Team Leader will provide a means for teachers to share concerns and wishes along the way. By supporting the ArtCore Leader with a stipend and clear guidelines and expectations, the efforts and significance of this position to project success will be honored. To uphold the management plan, adequate time commitments have been allocated to establish shared accountability with defined delegation of responsibility across partnering organizations. The three partnering organizations taking a lead role have a long-standing history of successful, innovative collaboration aimed at school improvement and increasing student achievement.

Time commitments of key personnel. Specific time allocations and responsibilities are as follows: *Lane ESD School Improvement and Evaluation Specialist, Ross Anderson (.70 FTE), will serve as Project Director and Principal Investigator*, responsible for budgetary oversight, overall management of project planning and implementation, assurances of fidelity to model design, curriculum support and alignment for module development, and substantial oversight of internal and external evaluation procedures, continual improvement, and dissemination of results. He will take a lead role in developing and executing sustainability plans with each school for long-term continuation. *LAC Executive Director, Liora Sponko (.40 FTE) will serve as Project Manager.* In this role, she will lead the planning and implementation of the project design, the development of strong relationships between art specialists, teachers, and the school community, the recruitment and thoughtful matching of Art Specialists to schools, and support for the development of standards-based modules. She will supervise the Project Coordinator and Program Assistant. She will co-lead the Project Management Team with the

Project Director. *LAC Arts Education Program Manager, Lauren Suveges (.50 FTE) will serve as Project Coordinator*, and be responsible for organizing and coordinating both art specialist residencies as well as professional development. Along with the Project Manager, she will ensure that art specialists provide a quality experience with strong curriculum design. She will determine if additional training and support may be required on an individual basis. *LAC Program Assistant, Katy Vizdal (.50 FTE) will serve as Program Assistant*, responsible for providing administrative and programmatic assistance to project leadership as well as project partners and schools. She will be the point-of-contact for classroom teachers when needs arise around residencies, ObaWorld, and scheduling of video vignette developments. *External Evaluator, Keith Smolkowski* will direct evaluation procedures, review evaluation design, refine evaluation plan, organize data collection procedures and timeline, clean data as needed, analyze data, support the development of internal reports for grant requirements, and develop an annual evaluation as well as a summative evaluation for the entire 4-year project. *Media Arts Institute Video Producer, Ed Madison*, will direct the planning, production, editing, and presentation of video vignettes with art specialists in the community based on the needs of specific module development. *Springfield Public Schools Special Project Coordinator, Nicole Reyes*, will provide project support administratively for the lead applicant and assist the Project Director in drafting subcontracts, maintaining oversight of the budget, and other project management needs.

Continual process of improvement. The establishment of an ongoing feedback loop for continuous project improvement intends to ensure steady progress towards model sustainability and replication. Using a range of measures, including *focus groups, classroom observations, student and teacher surveys through ObaWorld, personal interviews, and analysis of student formative assessments*, the Management Team will have substantive evidence to draw on to evaluate the needs of the project on a quarterly basis. Surveys will be given at random to users

on the ObaWorld platform as well as after trainings for teachers. To understand the immediate impact of the modules on student achievement in math and reading, the easyCBM formative assessment will be administered before and after with a random sample of at least 25 students at each site. Additionally, each module development will be accompanied by a pre- and post-assessment that focuses on both the content and standards built into the modules to gauge how well students grasped and retained the concepts, knowledge, and skills. These results will be discussed at the monthly school-based ArtCore Team meetings and quarterly Management Team meetings to directly impact the ongoing refinement of the module structure, processes, delivery, content, and ArtCore trainings. As project leaders, the Project Director and Project Manager will use the comprehensive information collected to produce reports for the Management Team and External Evaluator to review. These results will help formulate the problems or issues and design immediate solutions to implement. If student achievement does not appear to be showing the growth hypothesized, by drilling down into the data, the project leadership can determine if those results were related to a specific module, cross-disciplinary integration, or teaching artist and classroom match. Recommendations and changes, such as additional training, can be made with confidence. Conversely, if the formative evaluation data reveals success stories, analysis and validation conducted by the External Evaluator, will help isolate the potential causes.

F. PROJECT EVALUATION

OBJECTIVE 1: To increase student achievement in mathematics and reading through participation in the ArtCore model. By June 30, 2018, students at participating school will have demonstrated significant increased proficiency in mathematics and reading compared to students in comparison groups. ***Research Questions:*** Does the ArtCore model affect student achievement? Does duration, repeated treatment, and intensity of exposure to art specialists impact the magnitude of effect? ***Outcome Measure:*** After two years of implementation,

aggregate scores from assessments of students who have experienced two years of the treatment will see statistically significant growth compared to nonequivalent comparison group equal to at least a 0.25 standard deviation difference. **Benchmark Measure:** By May 2015, quarterly results on the benchmark assessment will show statistically significant growth for the treatment group compared to expected normative growth with an effect size of at least .10. **Measurements:** The CCSS-aligned easyCBM© benchmark assessment will be the primary measure. The Smarter Balanced assessment will be used after field-testing and validation is complete in 2016.

OBJECTIVE 2: Increasing student self-efficacy, growth-oriented mindset, grit and persistence, creative dispositions, and 21st century skills. By June 30, 2018, students at participating schools will report statistically significant growth in their self-efficacy, growth-oriented mindset, grit and persistence, creative dispositions, and 21st century skills (that include: creativity, communication, information fluency, critical thinking, problem solving, digital citizenship, and technology operations and concepts) compared to those in nonequivalent comparison groups. **Research Questions:** Does the ArtCore model effect the development of a growth-oriented mindset, grit and persistence, self-efficacy, creative dispositions and/or 21st century skills? Is there a correlation between growth in any of these domains and academic achievement in mathematics and reading? **Outcome Measure:** Each year of implementation, aggregate scores of students for each measure who have experienced two years of the treatment will see statistically significant growth compared to nonequivalent comparison group equal to at least a 0.25 standard deviation difference. **Benchmark Measure:** By May 2015 and May 2016, results from a representative sample of students will show statistically significant growth for the treatment group with an effect size of at least .10. **Measurements:** 21st Century Skills Assessment©, Mindset Survey© (mindsetworks.com), Grit Scale (Duckworth), Grit Scale

(Duckworth, 2007), Self-efficacy scale (Chen, Gully, & Eden, 2001), and 5 Creative Dispositions (Lucas et. al, 2013).

OBJECTIVE 3: *Increasing the ability of middle school teachers to design, create, and deliver standards-aligned arts integrated curriculum through the ArtCore model.* By June 30, 2018, the project's 45+ middle school teachers will have increased their ability to design, create, and deliver arts integrated curriculum that addresses both the CCSS and national arts standards.

Research Questions: Do teacher practices, knowledge, ability, and behavior change as a results of the ArtCore training and implementation? Do theses practices impact student engagement?

Outcome Measure: By June 30, 2018, 90% of project teachers will have increased their (a) knowledge of art disciplines; (b) growth on the 5 Creative Dispositions, (c) ability to translate and deliver curriculum objectives and student learning skills across art and at least one other academic domain, and (d) engagement in cross-disciplinary professional learning and teaching (all teachers will be observed at least once, but a random sample will be fully measured across these domains for the purpose of this evaluation). **Benchmark Measure:** By the end of each year of the project, at least 90% of treatment teachers will show a significant increase in each domain as compared to no significant increase demonstrated by teachers from comparison schools.

Measurements: Pre- and post-treatment rubric-based evaluation of lesson plans; Attendance at 90% of trainings for teacher cohort; Knowledge of Art Disciplines Survey; Survey of Effective Art Integration Practices; Observation Tool of Creative Teaching Habits and Practice; 5 Creative Dispositions; Student Engagement Tool. (Based on a review of extant measures, all surveys, observation tools, and rubrics will be created, tested, and validated by project evaluators).

OBJECTIVE 4: *To affect positive school-wide improvements in truancy, frequency of office referrals, achievement gap, and cross-disciplinary collaboration of teachers.* By June 30, 2018, the five participating ArtCore schools will have shown improvements in these school-wide

indicators of positive school climate. **Research Questions:** Does the ArtCore model impact school-wide indicators of positive school climate, such as: attendance, office referrals, shrinking achievement gap, and cross-disciplinary collaboration of teachers? **Outcome Measure:** After each year of implementation, truancy and office referrals will have decreased by 5% for the most at-risk subgroups; the achievement gap in math and reading proficiency will have decreased by 5%; and collaboration across disciplines will have increased by 25%. **Benchmark Measure:** By March 2015, school-wide statistics will show trending improvements. **Measurements:** Student data from the student information systems at each school; aggregate school achievement data; and Cross-Disciplinary Collaboration Survey (designed, tested, and validated for project).

Objective performance measures. The evaluation plan for this proposal received substantial input from the external evaluator, Dr. Keith Smolkowski. An overview of the evaluation can be seen in Appendix B.2 for additional clarification and sequence. Beyond the progress monitoring that will take place each year, a formal formative evaluation will occur annually, conducted by the External Evaluator and Project Director. The summative evaluation will examine: (a) impact on student academic achievement; (b) 21st Century Skills; (c) student engagement; (d) impact on teacher practice and knowledge of arts integrated teaching; (e) impact on student self-efficacy, mindset, grit, and self-reported creative dispositions; (f) relationship between growth of student self-efficacy and academic achievement; and (g) school-wide effect across instructional, behavioral and academic indicators. The measures used for this evaluation plan consist of validated and standards-aligned student achievement measures and benchmark assessments, such as the Smarter Balanced assessment and easyCBM©; validated surveys and assessments for 21st Century skills, self-efficacy, grit, mindset, and creative dispositions; and observation and survey tools for teacher behavior and classroom engagement designed and

validated by the Management Team for this project. School-wide data, such as office referrals and attendance, will be gathered from student information systems used in each school.

Quantitative research design and methods of analysis. The evaluation research design will employ a quasi-experimental design (QED) with a matched nonequivalent comparison group of non-participating schools to build evidence of effectiveness using a repeated measures longitudinal design. Multiple measurements before and after the program implementation will be conducted for participating schools and for comparison schools. Comparison schools have been selected by district leadership and the project design team based on (a) similar demographics and neighborhood characteristics (socioeconomic status and race/ethnicity) and (b) baseline achievement level by subgroup and school-wide. According to Shadish, Cook, & Campbell (2002) student's prior achievement serves as statistical control that can allow stronger inferences to be drawn from results when random assignment is not possible. To control for any differences between treatment and comparison groups, analysis of covariance will be used. By using a one-to-one match for each participating school in the comparison analysis, the analysis will achieve stronger statistical power. Using the same QED, project evaluators will analyze outcomes on student measures by using extant surveys of mindset, grit, and self-efficacy as well as an assessment of 21st century skills (validity and reliability coefficients of $>.70$ and $>.80$). The 21st Century Skills Assessment aligns to domains of interest in this project including: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving, digital citizenship, and technology operations and concepts.

In addition to a between-groups analysis of variance, a within-subjects analysis will be conducted on participating student growth in the domains of interest. While a QED using comparison groups will provide a valid and reliable way to measure the effect size of the projects impact on student achievement, the evaluation design will also use normative growth

expectations for the easyCBM© benchmark assessment. Using within-groups analysis and normative growth as the benchmark will provide the basis for comparing the multiple cohorts of students within the same schools (repeated measures design comparing baseline to treatment within each cohort). The multiple cohort design provides the opportunity to investigate how level of intensity (Tiers 1, 2, & 3) of art specialist involvement impacts student growth. This analysis will be possible since successive sixth grade cohorts will receive less interaction than the previous 6th grade cohort. Additionally, project evaluators will compare changes in baseline measures to treatment measures to examine the difference in impact of a single treatment versus multiple treatments and use a pattern matching technique to examine magnitude of impact.

Since growth in the non-academic domains is not likely to change by itself, the within-subjects analysis will produce results that infer causation. This research plan will still conduct the non-academic measurements with a random sample of students from each of the comparison schools to conduct a between-subjects analysis. Lastly, a correlational design will be employed to investigate relationships between domains of interest, such as self-efficacy and academic achievement. A similar process as illustrated above will be used to evaluate the impact of the trainings and ArtCore module development and implementation on teacher knowledge and integration of arts education in the classroom. Qualitative observation data will be coded for the treatment and comparison teacher samples included in this evaluation study (refer to Objective 3). These data will provide triangulation to validate results from the self-reported surveys.

Data collection procedures and reporting. To provide for ongoing formative evaluation of program effectiveness, benchmark assessment data will be collected before and after each module for a sample of students ($n = 120$) to assess impact and inform future design and development. Used throughout the participating schools, the easyCBM© assessment is an efficient, familiar tool ensuring that this data collection does not overburden teachers or remove

students from valuable class time. This effort will go on continuously in the winter and spring each year of the project. With support from ObaWorld programmer, Dane Ramshaw, the survey instruments measuring non-academic domains will be employed using ObaWorld for a matched sample of treatment and comparison group participants, pre- and post-treatment (a paper and pencil format will be available as needed). The 21st Century Skills Assessment is administered through the test publishers website, learning.com, and will be taken pre- and post-treatment as well (2x per year) by a matched sample of treatment and comparison group participants. All measurement data will be housed on a secure server that is password protected using an Evaluation Management System until it can be de-identified, cleaned, and prepared for analysis. All surveys and assessments require from 5 to 30 minutes.

The first year of the project will be a period of testing and reworking of the logic model, evaluation plan, evaluation instruments, and data collection plan. The Management Team will work with the trainers and evaluators to develop a rubric assessment for lesson plans within the modules, assessments developed for the modules, and observation tools for arts integrated teaching that will be used to track **Objective 3** on page 45. To provide consistent and useful feedback to teachers and art specialists as well as reliable data for evaluation purposes these tools will also help teachers shape the development of their lessons and module progressions. To that end, the development of these tools will be a priority during the fall of 2014; they will be finalized by March 2015. These tools will be piloted in year 1 and evaluated for validity, accuracy, and precision by the project evaluators. Table 11 on the following page describes which area of interest will be incorporated in the evaluation plan each year of the project. To learn more about change in school climate beyond just student indicators, the project evaluators will conduct case study interviews with School Principals at each of the schools using qualitative data collection and analysis procedures (Merriam, 1998; Stake 1995).

Table 11 *Schedule for Measurement Development and Implementation*

<i>Year of Project</i>	<i>easyCBM®</i>	<i>Smarter Balanced</i>	<i>Surveys of Grit, Mindset, & Self-efficacy</i>	<i>21st Century Skills®</i>	<i>Teacher Surveys & Observation Tools</i>	<i>Attendance, Office Referral Data</i>
Year 1	>3 Times; Baseline	Pilot	Baseline; 3 Times	Pilot; Baseline	Develop & Baseline	Baseline
Year 2	>3 Times	Once; Baseline	3 Times	Twice	6 Treatment Classrooms; Twice	Once
Year 3	>3 Times	Once	3 Times	Twice	6 Control Classrooms; Twice	Once
Year 4	>3 Times	Once	3 Times	Twice	Three of Each	Once

The overarching goal for this project is the development of a school-wide arts integration model and the processes, infrastructure, trainings, and system-wide sustainability that are required to achieve optimal conditions to impact important student outcomes. To this end, the Management team will submit detailed progress reports of preliminary findings annually by September 30th. Based on the research questions, objectives, and expected outcomes, the results from this evaluation plan will provide evidence of promise for arts integration as an effective way to not only boost student achievement and increase artistic skill but also increase critical motivational factors and 21st Century Skills for disadvantaged students. Within six months of the conclusion of the project, project evaluators will write and submit at least one article to a peer-reviewed journal based on the findings of the project. In the current climate of high stakes standardized testing, narrowed curriculum, and punitive measurements for schools labeled as *failing*, the proposed model of arts integration will provide an accessible alternative to schools looking for a path to transformation through the creativity and innovation.