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*The S.M.A.R.T. Project:
Sustaining Meaningful Art and Reading Together Literacy Links –HMR Series*

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The S.M.A.R.T. Project:***Sustaining Meaningful Art and Reading Together Literacy Links –HMR Series*****A. Need for Project (15 points)**

The SMART Project is a continuation and expansion of the work accomplished by the Sacramento County Office of Education's Arts in Education Model Development and Dissemination Grant Program: *Art and Reading Together: Creating Meaningful Literacy Links* with the SRA McGraw Hill Open Court Reading Series. This 2003-06 grant focused on the *ArtPower* model developed by the Crocker Art Museum and the development of A.R.T. Kits directly aligned to investigative curricular units within the state adopted Open Court Reading (OCR) curriculum. Activities developed through this grant program enriched the curriculum, providing students with opportunities to learn ideas and concepts in new and different ways. This project was piloted at seven schools in the Sacramento City Unified School District, Elk Grove Unified School District, and Pierce Unified School District as well as implemented after training in the former North Sacramento School District (now part of Twin Rivers Unified School District-TRUSD) from 2008-10. In 2008 four districts_Del Paso Heights District, North Sacramento School District, Rio Linda Unified School District and Grant Joint Union District unified into TRUSD.

New funds are now being requested to expand research on the A.R.T project within TRUSD, specifically, in the former Del Paso Heights Elementary District (now called Del Paso/North Sacramento Neighborhood Network) and Rio Linda Elementary District (now called Foothill Farms, Highlands, and Rio Linda Neighborhood Networks). These elementary district schools had adopted Houghton Mifflin Reading: A Legacy of Literacy (HMR) as their standards-based instructional text. ART Curriculum is being disseminated through the California After School

Resource Centre located at the Alameda County Office of Education. Using the expertise gained in the previous 2003-06 grant, evaluation data, and dissemination and review data the ART curriculum and kits will now be developed that link art activities to the thematic units found within the Houghton Mifflin Reading: A Legacy of Literacy Series (the HMR Series). Through the expansion of this project, it is our vision to document the replicability of the *ArtPower* and A.R.T. Kit model to create an arts enriched environment, integrating both reading language arts and arts literacy skills development for the second of the only two California State previously adopted Reading Series for Elementary. Due to the California budget crisis and the pending National Standards movement, TRUSD has elected not to adopt a new textbook series; therefore, arts integration lessons are needed for both Open Court and Houghton Mifflin as the district has two adopted textbook series from the merger on July 1, 2008. In addition, as we develop HMR lessons, the curriculum leadership will develop grade-level lessons with universal themes that will cross-over into our new adoption series so that as a new adoption occurs, the curriculum will be seamless for teachers and students.

Funds from this grant will be focused on 2nd, 3rd, 4th, 5th, and 6th grade students in 10 elementary schools housed in one newly-merged unified district. The test population consists of elementary schools located in the district using HMR in our four neighborhood networks (Del Paso Heights, Foothill Farms, Highlands, and Rio Linda) reaching approximately 4,400 students and training a total of 50 teachers. Table I shows a more intimate and valuable examination of student needs at district schools and what guided the selection of participants which also included Program Quality Indicator data from the California Department of Education's Model Arts Program Toolkit (2008-09), Meta Research Sacramento Community Audit facilitated through the Kennedy Center *Any Given Child* initiative (2010), requests from Principals and site

Visual and Performing Arts (VAPA) Plans. In addition, the data demonstrate the percentage of free and reduced lunch, percentage of English Language Learners, and percentage of third grade students proficient and above in ELA on the 2009 California Standards Test (see table below) chosen solely as a representation of student scores, and the need for arts instruction, specifically, integration of the arts into the CORE reading program. While some schools in the 2009-10 school year, including Allison, Hillsdale, Madison, North Avenue, and Orchard have received the services of an Arts Integration Specialist (AIS), Del Paso Heights, Oakdale, Pioneer, and Regency Park have not received any AIS services. Even further, the lessons that the AIS teachers are using have not been developed or tested except the Open Court sites that are using the ART lessons, however these sites are not a part of this grant proposal. The table clearly suggests the apparent need for arts integration as two sites are at Year 5 or over and all sites have less than 50% proficiency as well as a high percentage English Language Learners.

Table I: 2009 Data from the ten pilot schools in the S.M.A.R.T. project

School	% Students on Free Lunch	% of Students on Reduced lunch	% of English Language Learners	Program Improvement Status	% of 3 rd grade students Proficient & Above in ELA on 2009 California Standards Test (CST)
Allison	75	11	29	NA	27
Del Paso Heights	91	6	51	Year 5	23
Hillsdale	71	15	33	NA	35
Madison	86	7	21	NA	36
North Avenue	92	5	42	Year 5+	22
Oakdale	83	10	35	NA	41
Orchard	56	13	21	NA	33
Pioneer	66	13	21	NA	49
Regency Park	45	12	23	NA	34
Rio Linda(Dry Creek)*	66	13	23	NA	35

**these two sites may consolidate due to reconfiguration in the Neighborhood Network*

Gaps and Weaknesses

In 2001, the California State Board of Education adopted the Visual and Performing Arts Content Standards for California Public Schools, Pre-Kindergarten through Grade 12, which was published in the latest Visual and Performing Arts (VAPA) Framework in 2004. The VAPA Framework also includes key standards by grade level and VAPA content areas of dance, music, theatre, and visual art. These standards were built on the components of arts education contained in the previous Visual and Performing Arts Framework (1996) and the California Challenge Standards for the Visual and Performing Arts (1998). The standards were developed in response to California legislation stating, “Instruction in the visual and performing arts should be made available to all students”. This legislation was a significant policy statement in support of arts education, but unlike other adopted standards, the bill did not require assessment of the standards, which provided schools with no incentive to implement the standards nor assessment tools to verify their effectiveness or level of implementation. In addition, a report from the Center on Educational Policy (CEP) found in their 2005-06 survey that 71% of districts reported reducing instructional time in elementary schools for one or more subjects in order to make more time for reading and/or math. Nearly 97% of high poverty districts required schools to devote a particular amount of time to English/Language arts, compared with 55% to 67% of districts with lower poverty rates.¹ This fact has created a significant gap in arts education for students, particularly, those from low-income schools and those with varying degrees of poverty. Districts and schools with the greatest resources voluntarily implemented standards, while small, rural, and disadvantaged urban districts are unable to find the expertise or funds to support full implementation. The current State budget crisis has widened this gap, with local school districts

¹ Jennings, Jack, *From the Capital to the Classroom*. Center on Ed. Policy (CEP), March 2006

choosing to cut arts programs in order to balance their budgets. In the 2008-2009 PQI survey reports of district schools, all district sites surveyed indicated that they were below “implementation and operational level” on their Arts Program Quality. The data was verified by Meta Research and reported in the Sacramento Mayor Johnson Arts Initiative “For Arts Sake” report, the culmination of a study commissioned by the Kennedy Center for the *Any Given Child* Initiative that measured the “existing status of arts education in Sacramento”, including TRUSD.

While the policy and research at the national, state, and district level clearly support the arts as a core subject, the gap created by fiscal realities, the lack of a mandated assessment, and the realities of the increased time allocated for reading under NCLB result in the need to create a model program that integrates the arts into the core curriculum and provides students with an opportunity to create, perform, and respond to works of art through that curriculum.

Student Needs

Students need the arts as part of a high quality, in-depth, and meaningful education. As the targeted agents in the learning process, students actively construct their acquired knowledge. Research shows that arts integration can have a significant impact on curriculum and learning. “Paired subjects engage the same cognitive processes: attentive observation, identification of meaningful detail, selection of appropriate representational strategies and student reflection and self-critique. Setting these parallel processes in motion appears to generate a cognitive resonance between subjects, deepening learning in both.”² “Positive academic developments for children engaged in the arts are seen at each step in the research. The comparative gains for art-involved youngsters generally become more pronounced over time. Moreover and more important, these

² Rabkin, N and Redmond, R. (2006) The Arts Make a Difference, *Educational Leadership* vol.63 60-64, ASCD

patterns also hold for children from low socio-economic status backgrounds”.³ “Students perception of themselves as learners is also affected by the arts. High –arts youngsters were far more likely than their low arts counterparts to think of themselves as competent in academics, [and] they were also far more likely to believe that they did well in school in general, particularly in language and mathematics”.⁴ According to Dr. Victoria Stevens⁵, clinical psychologist, psychoanalyst and educator, Arts education can be utilized to develop the following skills, which transfer to other subjects such as reading: verbal and spatial imagination and creativity; the ability to think on many levels at the same time (e.g., relates to California Content Standard for Reading, Second Grade 1.0); analogical and metaphorical thinking; the ability to think about one’s own assumptions; the capacity for the development of new insights (e.g., relates to California Content Standard for Reading, Second Grade 1.9); and, recognition of a “whole” and therefore an ability to analyze the parts of a problem within a given context. A recent exhaustive report on teaching reading in the United Kingdom found that multisensory appeals were essential tools for maximizing student achievement. "The best teaching....was at a brisk pace, fired children's interest, often by engaging them in multisensory activities, drew upon a

³ Catterall, J.S, Chapleau, R, Iwanaga, John. (1999) Involvement in the Arts and Human Development: General Involvement and Intensive Involvement in Music and Theater Arts. In E.B. Fiske (Ed) *Champions of change: The impact of the arts on learning*. Washington, DC: Arts Education Partnershi.

⁴ Burton, J, Horowitz, R, Abeles, H (1999) *Learning In and Through the Arts: Curriculum Implications*, Columbia University,

⁵ Stevens, V. (2000). “The Importance of Creativity, Emotional Intelligence & the Arts for Education in the 21st Century”. Presented at National Academy of Recording Arts and Sciences.

mix of stimulating resources, and made sure that they received praise for effort and achievement" (Rose⁶, 2006). Even further, Baines⁷ relates that "Designing relevant and engaging interactions not only enhances student learning, it also affects students' long-term intellectual development. Using multisensory stimuli in instruction increases engagement, promotes deeper participation, and advances the prospect that learning can be fun. The author demonstrates that "according to Paige (2006), "you wouldn't be able to survive without your senses working together." "The benefits of multisensory stimuli seem substantial, especially in contrast to the current practice of teaching to the test. Of course, if the score is the goal, multisensory learning can dramatically improve performance on standardized tests, too."

The Houghton Mifflin Reading (HMR) 2nd through 6th grade program is divided into six thematic units that have multiple stories designed to provide students with a variety of themed-based literature. In addition, each unit has associated, cross-curricular activities that identify links or activities in the arts, primarily focused on visual arts integration. Unfortunately, time to understand, develop and refine these arts-integrated lessons to meet students' needs is difficult for classroom teachers and a significant obstacle to implementation. Further, the pre-existing links on the visual arts are limiting and do not provide students with the wealth of arts experiences as identified in the State adopted Visual and Performing Arts Standards. While all the schools are excited about the possibility of arts integration, they need arts curriculum knowledge and in-depth professional development support that creates direct links to the HMR

⁶ Rose, J. (2006.) *Independent review of the teaching of early reading*. Nottingham, England: DES Publications.

⁷ Baines, L. (2008). *A Teacher's Guide to Multisensory Learning: Improving Literacy By Engaging the Senses by Lawrence*, ASCD, Alexandria, VA, 2008.

curriculum. The S.M.A.R.T. Project will provide the support and technical expertise necessary to develop an integrated Arts/Reading Language Arts curriculum, improving both students reading and language arts skill and their ability to create, perform and respond to various arts disciplines.

Professional Development Needs

In response to the rapid growth of educational research and knowledge, the Twin Rivers Unified School District (TRUSD) has sought outside partnerships to provide significant professional development over the last few years. According to the “For Arts Sake” report, teachers indicated that there was not enough visual and performing arts professional development, and even further, 93% of teachers would implement the arts into the classroom day if they received training, while 86% of principals say that the arts should be a part of the school program (Meta Research, 2010). While some professional development activities such as day long workshops held on sporadic weekends as well as after school trainings have been useful, teachers would like a deeper engagement that connects to their classroom curriculum. “Teachers themselves frequently regard professional development as having little impact on their day-to-day responsibilities. They cite experiences that are meaningless and wasteful, focus on ideas that are faddish and not based on well documented research, and present ideas that are impractical to implement because of insufficient resources or lack of structural support.”⁸ The S.M.A.R.T. project recognizes that a quality arts education program requires significant professional development over time with provided standards-based arts curriculum lessons in order to be truly successful in this current educational climate. The professional development must be meaningful, research-based, and provide teachers with sufficient district and regional resources and support to ensure implementation and connection in the general multi-subject classroom.

⁸ Guskey, Thomas R. (2000) *Evaluating Professional Development* Corwin Press

Similarly, the teachers involved in the professional development programs examined in *Champions of Change* describe life-changing experiences that transform their professional lives. “High-impact programs demand both adequate staff preparation and strong administrative support. Well-trained staff and teachers also become leaders for institutional and systemic change.”⁹ Utilizing the research-based *Understanding by Design model* and the work of Thomas Guskey, we plan to develop a “high-impact” professional development program that will improve teacher knowledge / skills in teaching in and through the arts. Even further, teachers in the A.R.T. training in June 2008 in the former North Sacramento School District schools (prior to the merger) demonstrated a greater knowledge of arts instruction after the week-long institute, and when the teachers received their training A.R.T. kits late into the year, they improvised the lessons by using materials already found at the school site. Another key finding out of the training was that 2nd and 6th grade teachers who attended the institute and adapted the 3rd, 4th and 5th grade lessons to the grade level of their classroom. Therefore, based upon the results of the 2008-09 PQI data, the TRUSD VAPA curriculum staff recommended to Instructional Cabinet a plan for Arts Integration Specialist (AIS) teachers to work in ten elementary schools. As a result, the AIS teachers have requested lesson material for the HMR series as eight of the schools do not have OCR.

Sustainability Needs

The TRUSD and The Sacramento County Office of Education recognize that in order for arts programs to have an impact, they must be sustainable beyond the life of a grant. Throughout this grant project, the County Office will provide continuous support in order to assure that project

⁹ Fiske, E, Editor (2000), *Champions of Change: The Impact of the Arts on learning* The Arts Education Partnership, The President’s Committee on the Arts and the Humanities

successes are continued beyond the life of the grant and that TRUSD is able to continue the program on its own and weave it into the new curriculum adoption. TRUSD is committed to the success of this project, providing classroom space and available resources, collegial and administrative program support, an openness to experimentation, and the provision of time for implementation and training as per the TRUSD Vision 20/20 VAPA Plan at the pilot sites. Currently, 40% of TRUSD school sites have VAPA Plan for arts readiness. The County support consists of three phases. In phase one, the County Office along with TRUSD curriculum team will provide direct services to teachers and district administrators in order to build the internal capacity and leadership potential of the district around the project's goals and objectives. In phase two, the County Office and District adopt a more collaborative role with the schools, continuing to provide technical expertise in professional development and curriculum training and implementation, while training self-sufficiency strategies. Finally, in phase three, the schools take over the primary responsibility for the project through the Grant-trained Teacher Leaders. At the end of the Grant period, the district will have a cadre of Teacher Leaders prepared to provide guidance and leadership to other district classroom teachers. California County Superintendent Educational Services Association commissioned *An Unfinished Canvas-District Capacity and the Use of New Funds for Arts Education in California* study conducted by Stanford Research Institute¹⁰ via funding from the Hewlett foundation grant which Woodworth (2009) relates: "Districts with supports that facilitate thoughtful long-term arts planning – specifically, strategic plans that include arts education, district arts committees and district arts coordinators – are more likely to take additional steps toward the development of sequential

¹⁰Woodworth, et. al., (2009). *An Unfinished Canvas: District Capacity and the Use of New State Funds for Arts Education in California*. SRI International, Menlo Park, CA.

standards-based arts programs. Putting such supports will require leadership from both the board and Superintendent.”

The District will remain connected to the County Office through various network support services, providing updates and resources on the developed art / reading curriculum. Additional funding from the California Department of Education’s Arts, Music and Block Grant, the Sacramento Mayor Johnson’s *For Arts Sake Initiative*, The Kennedy Center *Any Given Child Initiative*, and Sacramento Region Foundation will be used to support TRUSD arts programs. In addition, the TRUSD Superintendent Frank Porter has committed the use of the now flexible funds Arts and Music Block grant for arts programming to include the support of a full time VAPA Coordinator. The TRUSD School Board adopted Resolution 83 on December 1, 2008 in support of arts education, and the TRUSD Cabinet is in complete support of the Vision 20/20 VAPA Plan. This resolution states, “Twin Rivers USD will use funds from the Arts and Music Block Grant [received each year by TRUSD] to create a plan and implement a robust K-12 grade visual and performing arts program, to provide staff to assist in the implementation of the program and staff development for the program, and ensure that all components of the [VAPA] standards are being addressed by every teacher in our district.”

B. Significance

Magnitude and Utility of Products

The *ArtPower* design model is an ambitious initiative in its conception and construction. Designed in much the same way as an interactive, hands-on museum, the model offers students the opportunity to explore core English language Arts curriculum through participation in various arts disciplines. The *ArtPower* Advisory Committee, comprised of artists, art educators, and a reading specialist, developed the interactive stations that integrate the Visual and

Performing Arts and English Language Arts standards in an art lab setting. In its initial form, the *ArtPower* model was presented in a single-use art lab classroom. These labs were grounded in all five art strands of the VAPA Standards: Artistic Perception; Creative Expression; Historical and Cultural Context; Aesthetic Valuing; and Connections, Relationships, and Applications. While the art lab format provided amazing opportunities for students to experience the arts, reconfiguration due to budget cuts that will be occurring at most elementary schools in the district does not allow for the use of a classroom for limited purposes. The creation of these ART kits provided the even greater opportunity to develop deeper imbedded curricular experiences for students and teachers. For example, Aprill¹¹ reiterates that “arts integration is teaching and learning in which arts learning and other academic learning are connected in ways in which the arts learning AND the other academic learning are both deepened” and further “in the 2002 CAPE research study *How Arts Integration Supports Student Learning* found strong evidence that arts-integration instruction increased student willingness to tackle “difficult” academic content, turning difficulty from an obstacle into a positive challenge”.

The curriculum materials integrated into the A.R.T. Kits were created through the SCOE research grant and designed to imbed each arts discipline as an integral part of the core English Language Arts. The A.R.T. curriculum or “Art Cart” is currently being used to some degree by 25 teachers at five OCR sites including and many other classrooms county wide by reinforcing skills in the language arts, focusing particularly on English Language Arts Content Standards such as reading comprehension, vocabulary development, literary response and analysis, and oral communication skills. However, the HMR schools are not implementing the OCR arts

¹¹ Aprill, A. (2010). Direct Instruction vs. Arts Integration: A False Dichotomy. *Teaching Artist Journal* 8 (1), 6-10. Taylor & Francis Group. LLC.

integration lessons. Additionally, schools that have implemented the A.R.T. program have noticed an extraordinary impact on students' critical thinking skills, literacy, and value identification, to gain both key visual and performing arts skills and language arts skills.

All S.M.A.R.T. Kit materials contain essential elements for interdisciplinary arts learning, added to for individual lessons:

- In-depth study of the content of the disciplines, using accurate and carefully-selected examples, materials, and terminology.
- Involvement of students in processes that are authentic and essential to the arts (creating, responding, and performing)
- Performance assessments compatible with the arts.
- The Visual and Performing Arts Framework (2004)
- Art supplies in plastic tubs, creating a cart with wheels.

S.M.A.R.T. carts may contain: (visual arts) paintbrushes, markers, crayons, specialized art resources, glue, scissors, rulers, measuring tapes, sewing kits; (performing arts) CD's, DVD's, costuming materials, pillows, scripts, dance step patterns, scarves, music maps, puppets, props, musical instruments (tambourine, triangle, finger cymbal, rhythm instruments) and can be adapted to any classroom and will be refilled each year, at District cost.

This model project links Art Literacy and Reading Literacy Standards together to create meaningful learning experiences for students. By aligning these Standards together, our global vision is to create a rich learning environment for students within their classroom setting. As a path to implementing this vision, we plan to:

- **Design** a comprehensive Professional Development program focused on increasing teacher's content knowledge and integration of the arts in their classrooms, developing their capacity to modify and expand on A.R.T. lessons to meet student needs, and increasing their individual leadership skills to move the project beyond their individual schools. Thirty teachers have already been trained on the A.R.T.s for OCR and some of these teachers will be peer mentors.
- **Design and Implement** S.M.A.R.T. Kits that are directly connected to the unit themes in the California State adopted Houghton Mifflin Reading: Legacy of Literacy series to strengthen the connection between the Reading Literacy methodology of Houghton Mifflin, the State-adopted California English Language Arts, the State adopted Visual and Performing Arts Standards for California students, the National Standards for Arts Education, and Common Core Standards for English Language Arts.
- **Disseminate** professional development and the S.M.A.R.T Kit model throughout the State to ensure project expansion and sustainability beyond the original project schools.
- **Evaluate** the underlying *ArtPower* model, A.R.T., and S.M.A.R.T. project principles and their replicability to be applied effectively to various research-based English language arts curricular models to ensure expansion of the project and lead to policy changes reflecting an increased valuation of the arts by educational leaders.

Replicability

The S.M.A.R.T. model incorporates McTighe and Wiggins work in *Understanding by Design*¹². *Understanding by Design* (UBD) uses a template process that assists educators in designing units and courses of study that focus on developing and deepening students'

¹² McTighe, J., Wiggins, G (1999) *Understanding By Design* ASCD, Alexandria, VA.

understanding and ensures the replicability of the project to any adopted subject matter material. All curriculum materials created in our previous grant, and those created as a result of this grant, will use the UBD model as well as additional common components specific to arts integration. These include: focus on the development of enduring understandings, identification of essential questions, connection to reading language arts standards, connection to visual and performing arts standards, development of common assessments, development of performance tasks, and culminating performances. Finally, the project evaluation results will focus on replicability of the S.M.A.R.T. model and will be provided through dissemination activities to other schools and districts to ensure effective implementation of materials and professional development activities.

Dissemination

Dissemination of the project will occur using a variety of methods including, but not limited to:

- Presentations of curricular and arts materials and evaluation data at: Annual California Art Education Association Conference (Fall), California Alliance for Arts Education, *Advocacy in Action Conference* (Spring), California Reading Association Conference, Department of Education, Arts Dissemination Grants Project Directors meeting, SCOE Arts Esprit de Corps (monthly); California County Superintendents Education Services Association and a link to the TRUSD website . Other relevant conferences will be identified through the Office of Innovation and Improvement's list serve for application as a presenter including the *Imagination in Education Research Conference* (Summer, Vancouver, BC CANADA).
- Availability of Sacramento County Office of Education trainers to other districts providing professional development and support in integration of the A.R.T. model including training in curricular development and implementation of A.R.T. Kits.

- Development of a S.M.A.R.T. Project website with the capability of two-way communication for participants and outside interested parties that will provide project information, sample lessons, update activities, evaluation results, additional resources and contact information (see Dissemination attachment for broader description).

C. Project Design

Research Based Comprehensive Curriculum and Professional Development Design

The S.M.A.R.T. Project recognizes that a comprehensive arts education program requires significant curriculum development planning time and an in-depth professional development that is based on solid research and identified effective practices. In order to provide a comprehensive, replicable program, we have based our design plan on the backward design process outlined in McTighe and Wiggins, *Understanding by Design (UBD)*. UBD, as discussed earlier, is a sequential process that has three stages of development: Identify desired results; Determine Acceptable Evidence; and Plan learning experiences and instruction. According to the RAND/Wallace Study¹³ “Revitalizing Arts Education through Community-Wide Coordination”, the following strategies will ensure a comprehension: 1) strategic planning; 2) requiring alignment with state standards; 3) developing curriculum supports; 4) building individual and organizational capacity; 5) qualifying providers; 6) coordinating peer review, ranking, and modeling; and, 7) assessing student learning. These high quality strategies will guide the S.M.A.R.T. implementation for arts integration and HMR.

¹³ Bodilly, et al. (2008), *Revitalizing Arts Education through Community-Wide Coordination*, Santa Monica, CA; RAND Co.

Stage 1 - Identify Desired Results:

Our curricular and professional development goals for this proposed grant project revolve around current and relevant research. In addition, the results and feedback from SCOE's initial A.R.T. model process and current use of already disseminated OCR integration lessons will also play a critical role in determining the use of effective arts education activities within our curriculum. To this end, the program proposes to include curriculum research, professional development opportunities, and the development of Art teacher leaders in the regular classroom within a tightly knit design, utilizing and reinforcing students' learning about their themed literature units to increase their knowledge of the arts content standards and skills. The developed curriculum will include 12 written lessons, 4 for each of 3 units at each grade level (2, 3, 4, 5, 6). Each curricular unit will include an exploration of dance, music, theatre and the visual arts, represented equally at each grade level while mindful of universal themes that can be used to cross into any upcoming district-wide ELA adoption and aligned with future state adoption of the common core standards for sustainability beyond the project. For example in the 5th grade lesson within the OCR A.R.T. model, students read *The Coming of the Long Knives*, a Native American story in their literature series. The A.R.T. Kit model expanded on the literature to develop student appreciation for Native American pictographs as a visual form of communication and also an art form. Students then use pictographs as a design element, retelling the story through the creation of Native American pinch pots - reinforcing literature, art skills and the creative process. As demonstrated in this example, the lessons developed will be directly imbedded into and aligned with the California State Standards for the Visual and Performing Arts and the Reading Language Arts Standards at each of the five specific grade levels. At the end of each unit theme, a final performance will focus on the identified theme and utilize

corresponding arts forms. In addition, as the leadership and evaluation teams examine student data on the district and state-level assessments, they will be able to see possible relationships between lessons that were taught using arts-integration, and proficiency on specific CA State Content Standards as well as the Kennedy Center arts integration expertise as committed to TRUSD through the *Any Given Child* initiative.

Other core research upon which this A.R.T. is based, are current methodologies supporting the teaching/learning cycle – Marzano’s¹⁴ nine identified strategies for learning and *Building Academic Vocabulary*¹⁵, Wiggins and McTighe’s *Understanding By Design* framework for lesson design, and Thomas Guskey’s levels of quality professional development as well as the Kennedy Center expertise noted for their arts integration models.

Stage 2 - Determining Acceptable Evidence

Using the above researched-based methods, assessment is directly connected to teaching and learning, which focuses attention on what we will accept as evidence of student understanding when we are determining the course of study, thereby, creating a more meaningful curriculum. The *Understanding By Design* framework is guided by research from cognitive psychology and authentic pedagogy. Insights from this research are clustered into 5 areas: 1) memory and structure of knowledge, 2) analysis of problem solving and reasoning, 3) early foundations, 4) meta-cognitive processes and self-regulatory capabilities, and 5) cultural experience and community participation. Authentic pedagogy and performance are measured by a set of standards that include higher order thinking skill, deep-knowledge approaches, and connections

¹⁴ Marzano et., al. (2001). *Classroom Instruction that Works*. ASCD. Alexandria, VA.

¹⁵ Marzano, R., and Pickering, D (2005). *Building Academic Vocabulary Teacher’s Manual*. Association for Supervision and Curriculum Development. Alexandria, VA.

to the world beyond the classroom. Both high and low level students are helped substantially with high levels of authentic pedagogy. *Understanding By Design* emphasizes the use of authentic performance assessment and pedagogy that promote a focus on deep knowledge and understanding and active and reflective teaching and learning.

Changes in academic achievement will be measured through the use of district unit assessments developed in the former Rio Linda and Del Paso Heights elementary districts. These district assessments are currently being used to determine English Language Arts Standards (Reading and Writing) in conjunction with the use of the Houghton Mifflin Reading program as well as end of year summative evaluations such as the California Standards Test (CST). In addition, a district-developed survey test tool will be used to assess the arts components in each of the three arts integrative units based on the VAPA standards that were addressed within the HMR unit. At the end of each Cohort treatment phase throughout the life of the grant, a Debrief Day will be planned to discuss and reflect on the process and gathered data. A complete discussion of our experimental research design can be found in section E.- Evaluation Plan.

Stage 3 - Plan Learning Experiences and Instruction

Planning of learning experiences requires the examination of several key questions:

- What enabling knowledge and skills will students need to perform effectively and achieve desired results?
- What activities will equip students with the needed knowledge and skills?
- What needs to be taught and coached, and how should it best be taught, in light of performance goals?
- What materials and resources are best suited to accomplish these goals?
- Is the overall design coherent and effective?

Answers to these questions will help to shape an effective learning experience for students and support project implementation.

In addition to the research-based Curriculum design structure, the levels of professional development will be layered and administered according to the in-service needed for each audience. The layers of the professional development provided will be designed for the various levels of implementation teams. These layers include: 1) the Curriculum Design Cadre of teachers-Year 1, 2) the various Cohorts of teachers receiving the training on a foundational level Year 1, 3) the integrative level Cohorts-Years 2&3 and 4) the Leadership cohort-Years 2&3. Leadership training will provide program sustainability through the creation of an expanded number of site and district instructors who have expertise in the implementation of the model and will provide leadership in the district for the continuation of the project goals and objectives. Our S.M.A.R.T. training will be based on Thomas Guskey's framework for evaluation of effective and meaningful Professional Development as described in his research book, *Evaluating Professional Development*. Guskey's five critical levels of professional development evaluation will provide guidance for our work and include: Participants' reactions, Participants' learning, Organization support and change, Participants' use of new knowledge and skills, and Student outcomes. Built into our S.M.A.R.T. Project design is 1) the long-term sustainability of ongoing Professional development through leadership training and 2) a systemic plan for educating appropriate District leadership teams on the valuable contributions this project brings to their goal of reaching all students with a well-rounded educational foundation.

Implementation of Design

In planning and writing this program, the Logic Model was used to formulate the basis of the implementation design. The logic model provides the basic framework for planning,

implementing, evaluating, and communicating the S.M.A.R.T. Project. The program logic model links outcomes (both short and long-term) with program activities/processes and the theoretical assumptions/principles of the program.¹⁶ This logic model articulates how the project's investments and day-to-day activities connect to the results the program strives to achieve. We include seven core components in this depiction of the program action:

1. **Resources.** The broad range of financial, human, political, organizational, and community resources available to the project include: 1) the grant funds; 2) facilities; 3) administrative oversight to be provided by the grantee organization; 4) CME, or professional growth units, offered by the school districts to be served through the project;
2. **Activities.** The processes, events, and actions that define how the project intends to achieve its intended outcomes and impacts include 1) the development of integrative arts lessons; 2) securing materials needed to implement the lessons; 3) development of professional development activities to train teachers to implement the lessons in their classrooms; 4) development of sustainability and dissemination activities to ensure that the lessons and strategies developed through the project can be used effectively in classrooms beyond those served by the project;
3. **Outputs.** The products that will result from successful execution of project activities include 1) 60 integrative lesson plans - 12 per grade level; 2) sufficient materials to equip 50 teachers to implement the lessons; 3) training materials and plans for Level 1 and Level 2 professional development activities; 4) tools and strategies to promote project dissemination and sustainability;

¹⁶ W.K. Kellogg Foundation (2001) *Logic Model Development Guide*.

4. **Short-Term Outcomes.** The immediate changes expected as a direct consequence of program activities and outputs are: 1) the delivery of a week-long, 30-hour summer institute in year one to provide foundational knowledge and skills in the four arts disciplines to 50 teachers as they enter the treatment phase of the project in the first year; 2) delivery of five 4-hour training sessions for five grade-level (2-6) cohorts of 10 teachers throughout the second and third year in advance of the arts integrative units (2, 4, and 6) during the treatment phase to assist with implementing the integrative arts lessons in the classroom; 3) the actual implementation of the arts lessons in the classroom during the treatment phase of the project;

5. **Mid-Term Outcomes.** The intermediate changes expected upon fulfillment of the short-term outcomes concern the following inter-related teacher outcomes: 1) increased content knowledge in the arts; 2) increased knowledge of integrative teaching strategies; 3) increased confidence in teaching integrative arts lessons; 4) improved capacity to modify the integrative lessons to meet student needs. To help teachers build on the knowledge and skills they are expected to gain during the first year of the treatment phase, 50 teachers will participate in Level 3 professional development activities during the 3rd and 4th year of the project to develop their leadership skills in the area of arts integration. These outcomes are critical to achieve if the long-term outcomes described below are to be realized.

6. **Long-Term Outcomes.** The final and most important changes are anticipated to take place at the student level upon successful attainment of the mid-term outcomes. These outcomes will build over time and include 1) increased content knowledge in the arts; 2) improved aesthetic valuing; 3) improved arts performance; 4) increased reading comprehension, increased writing performance, and increased overall achievement in English-language arts (ELA);

Figure 1. Logic Model for the Art and Reading Together (S.M.A.R.T.) Project (At end of document)

7. **Impacts.** The broader-level changes that the project ultimately hopes to contribute through achievement of its long-term outcomes are:

- Integrating the arts in the core ELA curriculum will lead to achievement gains in ELA and greater appreciation of the arts among students.
- Dissemination of research-based lesson plans will lead to expanded implementation beyond the original project schools.
- Attainment of project outcomes will lead to policy changes reflecting an increased valuation of the arts by educational leaders.

Capacity Building

Project capacity will be built through an extensive series of professional development opportunities that begin with the Curriculum Design Cadre. This cadre will include four experienced arts experts (the SCOE arts coordinator, the Kennedy Center consultant, the TRUSD arts coordinator, and the TRUSD curriculum facilitator) as well as four teacher leaders from the previous A.R.T. cohort with consultation and feedback from the current teachers who use the OCR A.R.T. kits, who will collaborate on the arts curricular units of study aligned to the Houghton Mifflin grade level themes along with TRUSD English Language Arts Coordinator. The Curriculum Cadre will receive in-service on the structure of the Houghton Mifflin program by two TRUSD Learning Coaches, collectively reviewing and revising arts curriculum as needed and presenting these units to the participating classroom teachers. Additional levels of Professional Development for the participating classroom teachers will include the following:

Foundational Training to include:

- Training institutes on UBD and Houghton Mifflin orientation;
- Hands-on engagement training on a sample arts discipline lesson including basics, vocabulary, elements, and principles; and,
- Debrief Day for reviewing and evaluating the year's progress on implementing the
- S.M.A.R.T. program in the classroom.
- Integration strategies

Integrative Training to include:

- Classroom management of small groups around S.M.A.R.T. Stations by grade level;
- More training on the Inquiry / Investigation process as it parallels the artistic process;
- More in-depth training on Assessment strategies;
- Hands-on engagement training on a sample arts discipline lesson including basics, vocabulary, elements and principles;
- Systemic collection of student artwork for class portfolio;
- Debrief Day for reviewing and evaluating year's progress on implementing a second year of S.M.A.R.T. curriculum; and,
- A Teacher Leader from each participating school will be sent to the Sacramento County Office of Education during the second summer to deepen their knowledge and understanding of the Visual and Performing Arts Standards and practices and cognitive research on applicable benefits of arts instruction.

Leadership Development training to include:

- Workshops structured around needs assessment of participating teachers;

- Systemic collection of student artwork for class portfolio that includes narratives about the learning process for each implemented unit;
- Guidance and training on a classroom teacher chosen unit of study from HM to develop an integrated unit of study using arts disciplines. This unit would be sequentially built over the course of the year in collaboration with the Curriculum Design Cadre.

D. Project Personnel

The Project Directors, Dr. Sherilene Chycoski and Maureen Gemma - SCOE K-12 Arts Coordinator, The Curriculum Facilitator, Dr. Sarah Curtis, and the Project Evaluator and Principal Investigator, Dr. Joe Orsini, along with assistance from a .50 support staff member will provide program oversight and leadership development to district and site coordinators in order to facilitate project implementation and sustainability. (See Milestone chart, Budget Narrative and resumes for time commitments and qualifications.) Co-Project Directors Maureen Gemma, and Dr. Sherilene Chycoski, Co-Project Director will be responsible for leadership on Grant Project, oversight on the budget, curriculum development of lessons, S.M.A.R.T Kit materials, professional development trainings, communications between SCOE, the district and community, the dissemination of the Grant project work and reports to the AEMMD office. Dr. Joe Orsini, Principal Investigator from Meta Research, will be responsible for setting up systems for evaluation and data gathering from the participating district and compiling results and the evaluation reports. Dr. Sarah Curtis, a 1.0 FTE Curriculum Facilitator, will be responsible for facilitating the grant work process with the Leadership Team, the Curriculum Design Cadre, and the Cohort of teachers, reviewing evaluation data to make any necessary modifications, documenting the process for the Final Report, and assisting with the website development, including video-taped lessons and grant dissemination.

These key project personnel will coordinate the Leadership Team which consists of the following community and district partners: Stacey Shelnut, Director of Education / Crocker Art Museum, Melissa Sais, Manager of School Programs and Teacher Services / Crocker Art Museum, and Dr. Ramona Bishop, Associate Superintendent. Table 2 below outlines race/color/national origin, gender, age, and disability of the core leadership members.

Table 2 Leadership Team Characteristics

Name	Race/Color/National Origin	Gender	Age Range	Other
Dr. Bishop				
Dr. Chycoski				
Dr. Curtis				
Dr. Orsini				
M. Gemma				
M. Sais				
S. Shelnut				

Dr. Chycoski brings a wealth of arts administration, curriculum development, and enthusiasm to support the greater Sacramento arts community into the Twin Rivers Unified School District. During the inception and transition of the district, Dr. Chycoski has worked with the TRUSD VAPA Task Force, TRUSD League of Extraordinary Artists, the California/TRUSD Alliance for Arts Education, SCOE Arts Espirit, and the Mayor's For Art's Sake Initiative as well as the Kennedy Center Any Given Child initiative along with Sacramento City USD and a board member of the TRUSD education foundation the Project DREAM. Dr. Chycoski firmly supports that In TRUSD the arts engage and inspire and she supports the vision of "Twin Rivers is creating a world class PreK-Adult Visual and Performing Arts Education Program that meets the

needs of the changing climate of the arts and entertainment arena while expanding the possibilities of an imaginative and creative graduate for tomorrow's workplace." As per the TRUSD 2010 report to our Community-Moving Forward together, Dr. Chycoski is responsible for ensuring that TRUSD offers: Visual and performing arts coursework at every high school; Central office gallery of student artwork; Student artwork highlighted in Sacramento Second Saturday Art Walks; Integrated Arts Specialists that provided coaching and assistance to classroom teachers; Sacramento Area Youth speaks-a program encouraging youth voice through spoke word poetry; Student performances at community events and venues; Schools dedicated to the arts; District-wide poetry, speech, knowledge and essay contests; Arts enrichment programs and field trips sponsored by Project DREAM, our education foundation; Principal Professional Learning Community focused on arts integration; and Arts Integration Specialists at ten elementary schools and four secondary sites. Lastly, Dr. Chycoski's dissertation research is closely connected to the project as she developed a quasi-instrumental tool to review STAR data and CST results of students in a local elementary school system within the Sacramento Region and the connections of participating in the arts and student achievement.

Maureen Gemma, co-director, is the arts coordinator for the Sacramento County Office of Education and facilitated the 2003-06 OCR A.R.T. model arts dissemination grant project throughout the county. Maureen Gemma is the K-12 Arts Coordinator with the Sacramento County Office of Education. Ms. Gemma has participated in many state arts projects with the California State Department of Education including work on the state adopted VAPA standards 2004, The Model Arts Program (MAP), The California Arts Assessment Network (CAAN), and the California State Artwork Grants Program. Maureen is currently the Regional Arts Lead for California County Superintendent Education Services Association (CCSESA) Capital Region 3 Twin Rivers Unified School District - 3/16/2010 – AEMDD

Art's Initiative, working with 10 counties within the region. In addition, Ms Gemma leads a monthly countywide *Arts Esprit de Corps* network for educational leaders committed to supporting Arts Education and has been a member of the Sacramento Mayor's Art's Initiative "For Art's Sake" Education Committee, and the Kennedy Center Any Given Child Community Audit working with Twin Rivers Unified and Sacramento City Unified. As Arts Coordinator, she collaborates with local arts organizations such as the Metropolitan Arts Commission and the Crocker Art Museum.

The principal investigator of the evaluation component of this project, Dr. Joseph Orsini, has been an associate with Meta Research for the past 5 years and is a retired professor of Management of the California State University, Sacramento. As a full time faculty member, he taught business research and marketing research classes, at both the graduate and undergraduate level, over the entire course of his career. Subsequent to retiring he taught methods of statistical analysis to employees and managers of several California departments, along with performing advanced statistical analysis on many of Meta Research's projects. Dr. Orsini has also been involved in several program evaluation projects, primarily in conjunction with quality improvement efforts. For six years he was a Certified Quality Engineer, involved with evaluation and improvement efforts in both analytical and "hands-on" contexts. These projects were in both the public and private sectors.

Dr. Sarah Curtis has been writing curriculum for over ten years and has been a classroom teacher at the high school and college level for over 15 years. She served as Curriculum Coordinator at Natomas Charter School for the Performing Arts for two years, oversaw all core and arts curriculum for Heritage and Horizons Charter Schools, has served as Curriculum

Coordinator for The Grant Union School District and the Twin Rivers USD for over 4 years, and received her doctorate of education in curriculum and instruction.

E. Management Plan

Responsibilities, Timeline and Milestones

As a result of the experience of the Project Co-Directors for the 2003-06 A.R.T. project, some of which were: the need for a full-time Curriculum Facilitator, an expanded directorship, focus on one district, time warranted for lesson development and leadership cadre feedback, student-level data gathering and evaluation, clerical and budget tracking and support, as well as ongoing support and assistance for teachers, the Leadership Team has embedded the recommendations both formal and informal into the S.M.A.R.T. project plan. The experience and expertise of the evaluation team led to careful analysis of time and resources necessary to implement a rigorous evaluation plan. The majority of Year 1 will be spent reviewing, refining, and establishing the units of study and lessons, which in the previous grant were deemed time consuming; therefore, we have allotted a planning year to work with the full time Curriculum Facilitator as well as gather and share student/school data from at least the last 2 years.

The co-directors have developed milestones by Year in order to keep the S.M.A.R.T. project on track and within budget by projecting scenarios that include the California budget crisis, changes in personnel, the ongoing transitioning procedures of the district, and maintaining the District's 100% backing for moving arts education forward to become a lighthouse district for the arts. Clearly, the project directors are undertaking this project at a time of the greatest need for TRUSD students and community, which is applauded by Mayor Johnson's passion for the arts and creating Sacramento region to be a world class city.

Table 3 presents a detailed management plan, including milestones by year, person(s) responsible and implementation timeline.

Year One (Preparation and Planning) - 2010-11	Person(s) Responsible	Time Line
1a. Provide UBD and HMR orientation and evaluation design to Curriculum Design Cadre	Project Directors, (D)Curriculum Facilitator (CF), Project Evaluator (E)	Fall 2010
1b. Develop Visual and Performing Arts lessons for units 2, 4, and 6 for HMR language arts	D, CF, Curriculum Design Cadre (CDC)	Fall 2010
1c. Develop S.M.A.R.T. Kits to be utilized in individual 2 nd ,3 rd , 4 th , 5 th and 6 th grade classrooms and evaluation Test Survey tool for district data system- (Measures) based assessments required in the lesson kits	Project Directors, Curriculum Facilitator (CF), Crocker Art Museum, Curriculum Design Cadre, Evaluator	Fall – Spring 2010-2011
1d. Coordinate County Level Leadership Teams	SCOE Director	Ongoing
1e. Identify Key Site personnel to serve on site level leadership team	Project Directors, Leadership Team	Fall 2010
1f. Gather first year data	CF, Evaluator, Team	Ongoing
1g. Develop and Provide S.M.A.R.T. Foundational professional development training to 50 teachers (Summer Institute)	Project Directors, CF, Cadre, Evaluator	June 2011
1h. Report progress to Office of Innovation and Improvement	Project Directors, CS Leadership Team	End of Year One

Milestones Year Two and Three		
2011-2012 and 2012-2013		
2/3a. Provide S.M.A.R.T. Integrative professional development training to 50 teachers by grade level in advance of each unit (2, 4 and 6)	D, CF, Curriculum Design Cadre (CCD)	School Year 2011-2012
2/3b. Provide representation on site level Leadership Team to facilitate communication between sites and the District Office regarding program implementation and evaluation process	Project Directors, Curriculum Facilitator (CF), Project Evaluator	Ongoing
2/3c. Document curriculum design by CDC	Project D, CF, CDC	Ongoing
2/3d. Identify and provide professional development for site and district coordinators	Project Directors Curriculum Facilitator (CF)	Ongoing
2/3e. Document professional development process as implemented by trained leaders	Curriculum Facilitator (CF)	Ongoing
2/3f. Modify and refine arts integrated lessons as needed based on evaluation data	Curriculum Facilitator (CF) Leadership Team, Curriculum Design Cadre	Ongoing
2/3g. Plan, identify, and invite leaders Teacher Leaders to attend SCOE Summer Institutes	Project D's,(CF), CDC Teachers	June 2011- 12
2/3h. Gather data years 2 and 3	(CF), Evaluator	Ongoing
2/3i. Report progress to Office of Innovation and Improvement	Project Directors, Curriculum Facilitator (CF)	End of Year 2 & 3

2/3j. Disseminate products developed through S.M.A.R.T. project at conferences, district trainings, and Arts educator meetings	Project Directors, Curriculum Facilitator (CF)Leadership Team	Ongoing
Milestones Year Four - 2013-2014		
4a. Modify & refine training based on eval data	Project D's, (CF), CDC	Spring 2013
4b. Develop and provide S.M.A.R.T. leadership training of all teachers to being district, state, national and international dissemination	Project Directors, (CF), Curriculum Design Cadre	June 2013
4c. Gather Y 4 data and develop evaluation report	(CF), Evaluator	Ongoing
4d. Expand partnerships between district and community arts resources	Project Directors, (CF), Leadership Team	Ongoing
4e. Identify future funding sources for district and assist in application development	Project Directors, (CF), Leadership Team	Ongoing
4f. Development of S.M.A.R.T. website to support online evaluation and technical resources to enhance project implementation	Project Directors, (CF), Leadership Team, SCOE Technology Dept	Ongoing
4g. Provide opportunities for district to network with arts educators and arts community	Project Directors, (CF), Leadership	Ongoing
4h. Disseminate evaluation data to Leadership Team	Project Directors (CF) Evaluator	End of project
4i. Write and transmit final report information and data to the Office of Innovation and Improvement	Project Directors (CF) Evaluator	End of project

Feedback and Continuous Improvement

Opportunities for feedback and continuous improvement are a central component of the evaluation plan, which provides a more detailed discussion of the process. Opportunities for feedback and improvement were identified in the previous responsibilities, milestones and timeline table. The Project Directors have stipulated that the Curriculum Facilitator will provide weekly reports and updates in addition to daily conversations and emails and informal meetings, in order to ensure project success in delivering rigorous, relevant arts instruction to students as well as reporting accurately and in a timely manner to all stakeholders including grantors.

This will occur in a variety of ways. First, within the school district, the treatment schools will disseminate their information to the control schools, including their data from the previous four years, showing assessment results and any changes. This will aid in peer coaching and training sessions and ongoing dialogue. As cadre members disseminate their ideas in educational settings such as conferences and seminars, they will carry with them ‘kits’ that include sample lessons, findings, and other resources so that educators may get a sampling of the project.

As the lessons developed, through universal themes, will be applicable to a variety of adopted reading programs, we believe that when they are deemed to be successful in improving student proficiency in ELA and mathematics, other educators will find them highly relevant. As we fine-tune the process through a spiraling self-formative assessment and teacher rubrics determining lesson success, they will be tested with students, tested to be valid and reliable, and finalized for publicity. The lessons will be piloted for three years, during which teachers will provide constant feedback to the SMART leadership on the success of each lesson, so by the end of the project period, there will exist a great deal of teacher feedback. This teacher feedback, besides dialog, video, and other methods, will come from a cadre-developed a rubric that will be

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used at the end of each lesson and will allow for teacher feedback on the effectiveness of the lesson, and this will be shared with the leadership team and used in teacher collaboration for formative assessment. All of the project directors are highly qualified in the arts and as curriculum specialists, which will allow for robust, ongoing, high quality program assessment.

F. Project Evaluation

a. Objective Performance Measures

1. Type of Data - Existing

The primary hypotheses will use student test data for analysis; all tests are for specific grade levels. The test name, type and frequency are summarized as follows:

- California Standards Test (CST): ELA, Math [annually for all math topics]
- TRUSD Local Assessments: Math [at trimester by math topic]
- CA Summative Assessments: ELA [CA content standards at trimester]
- Standards Test Theme: ELA [by textbook theme at theme end]
- S.M.A.R.T. Evaluation Test Survey: Arts [developed in grant by ELA theme] *(see # 4)

Other non-performance data existing in the individual student data file will be examined for use in the secondary analysis. This includes: Gender; Race; Income [as measured by subsidized lunches]; GATE identification; Language proficiency; PQI, Attendance and behavior; and GPA.

2. When the Data will be collected

By textbook theme at theme end (approximately every 6 weeks)

- Standards Test Theme: ELA *and* S.M.A.R.T. Evaluation Test Survey: Arts

At trimester by math topic

- TRUSD Local Assessments: Math *and* CA Summative Assessments: ELA

Annually

- California Standards Test (CST): ELA, Math

3. Methods of Data Collection to be used

All data collected from students will be in the form of paper-and-pencil tests that are scanned by the TRUSD Research and Evaluation Department (R&ED) and housed in the individual student electronic data file. All tests except the S.M.A.R.T. tests are currently being applied to all students. All tests are highly secure, held, locked, in the District office until the day of testing, dropped off, kept secure, and picked up at school sites (by members of the TRUSD R&ED)

4. Type of Data – To be developed

- *S.M.A.R.T. Evaluation Test Survey: Arts [developed in grant by ELA theme]

While there are statewide arts standards, and there are a number of arts knowledge measures prepared by various entities and are in various stages of development, none have been adopted by either the state or the District. Further, none have been previously designed specifically for the S.M.A.R.T. project. In addition to being able to measure levels of proficiency in English Language Arts and math, part of this project is to develop a suitable measure of how well students have learned their lessons in the arts. While a complete scale development process utilizing full psychometric procedures is beyond the scope of this project, issues of reliability and validity will be approached in a systematic fashion. This tool will be developed in Project Yr 1.

The following lists the steps to be followed (indicated by a darkened circle), and the entity participating in those steps (indicated by an open circle):

1. List the arts concepts included in the S.M.A.R.T. program
 - Categorized by grade level, theme, and topic within theme
 - Curriculum Design Cadre as a group

2. Gather a variety of arts knowledge evaluation instruments
 - From various website and other sources
 - Curriculum Design Cadre as assigned
3. Select questions that are relevant to the S.M.A.R.T. concepts
 - Curriculum Design Cadre individually
 - Develop an overall list of questions by class and topic
 - Evaluator
4. Rate how well each question selected relates to its concept
 - Prepare rating questionnaire: metric scale with Poor and Excellent as anchor points
 - Evaluator
 - Rate each question on questionnaire
 - Curriculum Design Cadre individually
5. Determine the best of the questions to form the evaluation instrument
 - Construct validity: rate each item on how well it measures the theme
 - Evaluator
 - Stability (reliability): repeat questionnaire ratings in 2 weeks
 - Curriculum Design Cadre individually
 - Prioritize each theme question by validity and reliability
 - Evaluator
 - Prepare test[s] for themes and grades
 - Curriculum Design Cadre as a group

5. Methods of Data Analysis and Design

While *laboratory* experiments allow for tight controls of all aspects of experimental design, including random assignment of subjects to treatments, control for *field* experiments, such as this project, tend to be much more difficult. Unfortunately, random assignment is not feasible in this project, for reasons beyond the control of the applicants; see Selection Criteria.

These difficulties result in the necessity of using a “quasi-experimental” design. That is, a design that attempts to emulate true experiments, but has a deficiency in the equality of groups. In this project, the dependent or effect variable is student performance in the arts and ELA, and the treatment is whether or not the student has participated in the S.M.A.R.T. program. However, this type of design is always open to the possibility that some difference other than the treatment was the real cause of the difference of effect. Additional analyses to address this deficiency are discussed below.

This design will be strengthened by instituting a control group, similar to the treatment group but which does not receive the treatment; additional comparisons are made between groups, both before and after treatment. It is anticipated that there will be little difference between the treatment and control groups prior to the treatment implementation, but significant differences afterward.

Another method of strengthening the design is to employ an additional dimension to the design: the categorization by a second variable that is not directly related to the treatment or control; this is referred to as a regression discontinuity design. In this case the dimension will be the average income level of the schools, as measured by the percent of students receiving subsidized lunches. This will result in a design that has four types of school groups: high income receiving the treatment; high income not receiving the treatment; low income receiving the

treatment; low income not receiving the treatment. In addition, classes not receiving the treatment but in the schools that do have classes receiving the treatment will also be tested. There will be six groups of classes, each evaluated in an interrupted time series format.

While the central focus of this project is to enhance student understanding of the arts, and enhance their understanding of language arts, there is some thought that all learning may be enhanced. Therefore, evaluation of mathematics learning, through math assessment instruments, is part of the project analyses.

In addition to the overall Treatment/Control groups of schools, the District has student-level data with a variety of student characteristics. These include: Gender; Race; Income [measured by subsidized lunches]; GATE identification; Language proficiency; PQI, Attendance & Behavior; and GPA.

There will be sufficient cases in the treatment classes to examine the effectiveness of the S.M.A.R.T. program by these characteristics: 50 treatment classes; 50 same-school non-treatment classes, and 50 different school non-treatment classes. As each class has approximately 24 students, there will be approximately 3600 students per year in the data whose performance in the arts, ELA and math may be compared. For example, we may wish to examine the effects of language proficiency on test performance. We may hypothesize that language proficient students are generally doing well in their classes, so the S.M.A.R.T. program will not substantially enhance their test performance. However, language-deficient students may find the S.M.A.R.T. program extremely influential to both their ability to learn and their general interest in school; therefore, those in the program will have sharply improved test scores in all their subjects. This relatively large sample allows opportunity to further evaluate the impact of the S.M.A.R.T. program over time and give insight into the permanency of any changes in student learning

framework. Again using English language skills as the example, we may hypothesize that ESL students would do quite poorly on all testing in the lower grades, comparatively improving their test scores as they acquired greater language skills over the years.

The District does not assign students to classes as a cohort, so some students in the S.M.A.R.T. program the first year of its implementation may not be in the program the second year. We may thus compare these one-year-only students to both comparable students who are in the program the second year, and those who have never been in the program at all, to see relative test performance. That is, we may investigate whether even one year in the program makes a long-term change to student learning performance, or if it is only enhanced while the student is actually in the program. This finding may impact the future implementation priorities of the program as it expands to other classes and schools.

Comparison analysis for the primary hypotheses will be carried out for the treatment vs. same school and treatment vs. different school. The interrupted time series analysis will be undertaken using dummy variable regression, with a time-treatment interaction combination in the model. Difference in performance between paired groups, such as English learners vs. non-English learners will be performed using ANCOVA, adjusting test performance by relevant factors, such as GATE selection. This has the effect of reducing variance unrelated to the hypothesis, thus allowing amore accurate assessment to be made.

b. Performance Feedback and Assessment

6. Report Type and Availability

i. Annual Progress Reports – Years 1, 2, 3, and 4

An overview of all activities undertaken over the course of the year of the project.

Specific results of the development of the S.M.A.R.T. evaluation instrument, developed during the first year, will be included and distributed to selected stakeholders.

ii. Theme and Trimester Reports – Years 2 and 3

Student performance in all theme and trimester test, both District and project, will be sent to project stakeholders. These reports will compute by class, the percent of students performing at, less than, or better than, established standards in the arts, ELA and math and distributed to selected stakeholders.

iii. Final Report – Year 4

The final report will summarize activities undertaken during the course of the project, and the conclusion of the overall and specific performance of students related to the S.M.A.R.T. program. Distributed to all stakeholders. All District administrators as well as AEMDD project personnel have access to student data at all times, so data can be retrieved at any time. In addition, the R&ED at TRUSD compiles reports every semester (twice a year).

7. Use of Information Collected

a. Annual Progress Reports will allow managers and other stakeholders to view program progress. These reports will be available at the TRUSD district office, at the Sacramento County Office of Education, through the project directors, and on the TRUSD VAPA website. They will also be available in the kits that will be developed for dissemination.

b. Theme and Trimester Reports will allow project administrators and teaching staff to become informed of their specific class' performance, in order to refine their lessons.

c. Final Report will address the success of the program in meeting the purpose for which it was intended: improvement of student performance in the arts and reading.

Figure 1. Logic Model for the Art and Reading Together Project

