

Wolf Trap Foundation for the Performing Arts

Wolf Trap Institute for Early Learning through the Arts
Vienna, VA

The stART smART Network, a nationwide online
early childhood education community

I. Project Purpose: The Wolf Trap Institute for Early Learning Through the Arts is a twenty-one year old nationally recognized arts and education program that operates under the auspices of the Wolf Trap Foundation for the Performing Arts (Appendix A), providing professional development for early childhood (ages three to five) educators. In 2000, the Wolf Trap Institute responded to recent National Head Start¹ and National Association for the Education of Young Children (NAEYC) standards (Appendix B) that emphasize literacy and, for the first time, mandate the inclusion of instruction in the performing arts in the classroom curriculum by developing the program stART smART (Appendix C) in collaboration with the Memphis Arts Council. Through the stART smART program Wolf Trap Teaching Artists/Trainers train teachers in developmentally appropriate performing arts lessons by linking them to children's books. The project proposed for funding from the Technology Opportunities Program extends the stART smART model by employing network technology for distance learning to sustain training by increasing the interaction between the teaching artists/trainers and introduce peer interaction among the participating teachers enabling educators to meet the standards relating to literacy and arts based curriculum.

A. Need: In a recent speech before congress, First Lady Laura Bush called our attention to the education of America's youth from their earliest stages. "From day one, the education we provide our children will shape the way they think and learn. The quality of their education will either drive or stifle the enthusiasm, motivation, and effort they bring to learning, the way they interact with others, and their ability to adapt to their successes and failures throughout life." Research has determined a significant number of the nation's children enter school lacking the skills necessary to learn at the appropriate grade level. A recent survey in Maryland found that 51% of children entering Kindergarten in the state lack the skills and abilities to do grade-appropriate work successfully. The assessment found a wider gap among the state's minority children, with less than 40% of African American and Hispanic children found to be fully prepared for Kindergarten. (MSDE, 2002) Children from low-income homes are at greatest risk for lacking the developmental skills necessary to begin learning upon entering school. However, further research indicates that attending Head Start, pre-Kindergarten, or other center-based preschool programs is linked to higher emergent literacy scores in four-year olds. Numerous studies conclude that there is a great need for innovative approaches in providing early education services for children from low socioeconomic circumstances (Zill, Collins, West, and Hausken, 1993). A recent report by the Committee on Early Childhood Pedagogy outlined several key components of a quality preschool program, including **the need for well-trained teachers and continued professional development of early childhood educators**. (Eager to Learn, 2000). (Appendix D)

To respond to this need, the Wolf Trap Institute for Early Learning Through the Arts created and implemented stART smART in 2001. Using a combination of in-classroom training and outside workshops, stART smART addresses the demand for quality early childhood education by providing cost effective professional development in literacy and performing arts curriculum for early childhood educators. stART smART training introduces developmentally appropriate skills, concepts and experiences in the performing arts (dance, music, drama), which provide a link between the art form, literacy, and instructional objectives in the preschool curriculum.

¹ Head Start is a federal early intervention program that serves children to age five and their families. Income limits vary according to state and family size, but the average is approximately \$17,000 per year for a family of four.

Research concludes that the arts are intrinsic for early learning. “For all children, at all ability levels, the arts play a central role in cognitive, motor, language, and social-emotional development. The arts motivate and engage children in learning, stimulate memory and facilitate understanding, enhance symbolic communication, promote relationships and provide an avenue for building competence.” (*Young Children and the Arts*)

Independent evaluations of the stART smART program have commended the program for developing age-appropriate performing arts lessons and providing accessible activities and skills the teachers can replicate and create for themselves in their own classrooms. The evaluations also point to a greater need to sustain the work over a longer period of time, increase the interaction between the teaching artists/trainers, and introduce peer interaction among the participating teachers. (Appendix E)

Problem: Given the limited resources of schools, childcare centers and other non-profit agencies with which Wolf Trap works, the restricted time educators have for professional development, and the distance between Wolf Trap and our 14 Regional Programs (15 total) country, more sustained interaction between the teaching artists/trainer and teachers, and among teachers, has been a tremendous challenge. To maximize and sustain the impact of stART smART on the professional development of early childhood educators, and thereby the children in preschools across the country, we must find ways to eliminate barriers of time, distance, and cost.

B. Solution: To address this issue, Wolf Trap and our partners propose developing stART smART Network, employing distance-learning technology to connect three remote Regional Program sites (The Center for Education at Wolf Trap in Vienna, Virginia; the Center for Arts Education/ Memphis Arts Council in Memphis, Tennessee; and the Creative Arts Team (CAT) of New York University in New York, New York) and the classrooms they serve. Wolf Trap’s twelve other Regional Programs will also have access to stART smART Network in a read-only capacity.

Goals: The primary goals of stART smART Network are to use digital network technologies to:
1) transform Wolf Trap’s current intervention-style model of **professional development training into sustained learning experiences** supported by regular access to Wolf Trap Teaching Artists/Trainers and materials in remote sites; and
2) create a virtual community of early childhood professionals that transcends geographical distance via technology.

By employing technology such as three-way video conferencing, digital video recording and online program dissemination, and interactive Internet functions, Wolf Trap will be able to create a networked early childhood education community across a distance, transforming the isolated, in-person intervention model currently in place into a sustained learning opportunity for teachers. Specific program components include:

- Wolf Trap, the Center for Arts Education/Memphis Arts Council, and CAT/NYU will disseminate to and cross-train the directors and teaching artists/trainers at each partner site. With each partner focusing on stART smART music, dance, and drama (respectively), training in stART smART methods and on-going instructional support will

be achieved through in-person instruction, Internet technology, and video conferencing (goals 1 and 2);

- Selected teachers will participate in weeklong training institutes focusing on the foundations of stART smART and the technology applications that characterize stART smART Network. These live trainings will be simultaneously conducted in-person and across distance using video conferencing. A key component of these institutes is training in appropriate technologies so that participating teachers will be comfortable with the aspects of the program that utilize the Internet, such as completing and electronically submitting online forms, accessing streaming audio and video clips, participating in live chats or posting to an electronic bulletin board. (goals 1 and 2);
- Participating teachers receive one in-person stART smART Residency - seven weeks of in-class work with a Wolf Trap Teaching Artist/Trainer. Direct training will be supplemented by Internet based program support and video conferencing; (goal 1)
- Teachers will be able to demonstrate and document activities they have developed for artists and other teachers through digital video recording and video-conferencing, getting instant feedback and disseminating new activities to their peers; (goals 1 and 2)
- Teachers will receive regularly scheduled "update" trainings, the content of which will be developed in response to participating teachers' classroom experiences as communicated through digital video documentation and the completion and submission of online assessment/evaluation measures. stART smART team members will lead these trainings via videoconferencing for teachers; (goal 1)
- Teachers will be provided with a forum for discussion in which they may submit questions to be answered by other teachers and/or Wolf Trap Teaching Artists/Trainers. (goals 1 and 2)

C. Outcomes: stART smART Network will enable Wolf Trap and our partners to expand our relationships with educators by connecting teachers to each other and to Wolf Trap for the diffusion and improvement of arts education in early childhood classrooms. Upon full implementation of this project, we anticipate achieving the following **minimum** number of measurable outcomes on an **annual** basis:

- 12 Wolf Trap Teaching Artists/Trainers will be trained to be stART smART Network trainers;
- 216 participating teachers will be able to use digital network technologies to support their own professional development, and to establish professional relationships that transcend distance with others in their field. Specifically, these teachers will be trained to and will demonstrate their ability to:
 - post and access lessons online
 - participate in existing and initiate new discussions on a threaded bulletin board
 - evaluate themselves and others using online forms, and submit their responses electronically to the Project Manager
 - access streaming audio and video online
 - correspond using e-mail
 - navigate the Internet to research and access various resources;
- 500 lessons will be developed and made available on the stART smART Network for project participants to access at will. In addition, video of the implementation of many of

these lessons will also be made available online for the purpose of peer review and evaluation, and as an additional resources to participants;

- 20 new literacy and arts professional development workshops will be developed and disseminated across distance via digital network technologies.

D. Target Populations Served: The stART smART program will serve Head Start and other early childhood teachers in the communities listed below through a combination of in-person and remote training in the stART smART methods. These programs and participating teachers are located in urban, rural, and suburban communities with children and families who may be considered at risk. Many are recent immigrants, speak English as a second language and may have limited literacy skills in English and their native language. Families may be considered among the working poor, often single-parent households, and living below the Federal poverty line.

The District of Columbia and the following states will be served: Maryland, Virginia, Tennessee, Arkansas, and New York. Within these areas, it is anticipated that services will be in the following localities: Washington, DC; Prince Georges and Montgomery County, MD; Fairfax County, VA; Memphis and Shelby County, TN; West Memphis, AK; and New York City. During the three year time period detailed in this proposal, 216 teachers will participate in each of the stART smART Network program components. Approximately 4,320 children in their classrooms will benefit from learning in the residency conducted by the Wolf Trap Teaching Artist/Trainer and from the teacher's on-going implementation of literacy and arts based curriculum.

II. Innovation: Wolf Trap recognizes the opportunities technology offers to enhance and extend our proven methods of teaching and professional development. The innovative nature of this project lies in the application of network technologies, not in the technologies themselves.

A. Untested Strategies for Overcoming Access Barriers and Transforming Inter-organizational Relationships : Wolf Trap's current strategies for implementing professional development training are successful, but are limited by barriers of time, distance, and cost. stART smART Network will employ a combination of in-person and remote interactions to disseminate the stART smART methods of instruction to participating teachers and teaching artists/trainers over the course of one year. Each of the three sites will be equipped and networked for video conferencing and the participating teachers will have access to digital video cameras and computers with Internet access. Training in both the stART smART methods and technology applications will occur in-person for artists and teachers at the partner sites. Follow-up meetings, workshops, and evaluations will occur via distance learning technologies.

By connecting the teachers to Wolf Trap Teaching Artists/Trainers and to other teachers, stART smART Network moves beyond the single artist/teacher interaction and sustains meaningful relationships within the early childhood education field. Without the technology component, interactions beyond the seven-week residency model are practically impossible due to time and cost. The program will also strengthen the relationship among Wolf Trap's 15 Regional Programs by increasing the communication and involvement among all sites. Our work will

become more collaborative and interactive, resulting in the expansion of each site's overall reach.

B. Technology in the Field of Early Childhood Arts Education: While limited programs exist to supplement arts learning and arts integration for grades K-12, there are no technology-based training programs in arts education for early childhood educators. ArtsEdge/Marco Polo and Young Audiences are examples of some of the more prominent providers of K-12 curriculum; however the resources they provide constitute passive learning, unlike the interactive, responsive training program we are proposing.

C. Benefits to the Fields of Early Childhood Education and Arts Education: This project will serve as a model for using technology economically and efficiently to sustain professional development learning experiences for individuals in geographically diverse locations. This has implications for members of the fields of Early Childhood Education and Arts Education. Members of the Early Childhood Education field will learn how to use community resources and specifically arts organizations to support standards in their curriculum, the direct training of teachers, and direct services for children. Members of the Arts Education field will learn how to strengthen the role of teaching artists in classroom settings, and extend trainings beyond the scope of a residency program. Both fields will learn new methods for using interactive technologies to refine programming and its delivery.

III. Diffusion Potential

A. Prevalence of Need in Other Communities: Over the past three decades, the number of America's youth in pre-school care outside of the home has expanded exponentially, and continues to climb. At present, more than 60 percent of American mothers with children under age 6 are in the labor force (U.S. Department of the Treasury, 1998; U.S. Bureau of Labor Statistics, 1999). There are approximately 3.8 million children aged 2-5 in the U.S., with 65% of 4-year-olds and almost 40% of 3-year-olds enrolled in early childhood education (pre-school, Head Start, and child care centers). (U.S. Bureau of the Census, 1996). Nationally, Head Start serves over 900,000 children age five and younger each year.

B. Cost Effectiveness and Simplicity of Approach: A significant benefit of stART smART Network is the ability to reach and maintain sustained involvement with a wide net of users at a lower cost once the technology is in place at key centers. Wolf Trap will process and deliver content for the distance learning activities, and connection to the network can be attained with minimum investment in video conferencing equipment or by establishing a partnership with other organizations with the technology in place. Once the program has been successfully implemented in the participating Regional Programs, Wolf Trap will support and enable other Wolf Trap Regional Programs to plug into the stART smART Network.

C. Plan to Effectively Share Information About the Project: Wolf Trap hosts directors from all 15 Regional Programs at a conference each year. Following the successful completion of stART smART Network within the three partner sites, Wolf Trap will begin disseminating the program to the other Regional Sites over a period of five years. Ultimately, stART smART Network will have the potential of reaching every teacher participating in a Wolf Trap residency. At current level of service, this will exceed 1,000 classrooms per year. The number of teachers

served annually will increase exponentially as recipients of programs during previous years continue to be trained and supported through the network. In addition, Wolf Trap will pursue publication, conference presentations, and website links associated with leading education, early childhood, and arts organizations. Wolf Trap has a well-established role as a conference presenter and leader in all specified organizations that will facilitate dissemination. (Appendix F)

IV. Project Feasibility

A. Technical Approach: To achieve the goals of stART smART Network, Wolf Trap seeks the ability to schedule, manage, and facilitate three-way video conferences over the Internet to deliver programs and material to larger audiences at once, in real time, or from storage on demand to facilitate its program delivery. Wolf Trap will provide access to this material from partnering regional sites and the regions would have the ability to collaborate and interact in real time with live events or these events can be recorded and used later. The regional locations will have the ability to store their programs on the central servers at Wolf Trap so other regions can benefit from this ongoing work. Finally, a transaction management system and course management system will be procured from Blackboard, Powerschool or equivalent. (Appendix G)

A.1. Interoperability: stART smART Network is designed in anticipation of serving all fifteen regional Wolf Trap sites and hundreds of other early childhood education centers across the country. All equipment specified is being installed and configured to allow for maximum interoperability between our systems should one aspect be affected, we will have other avenues to reach our audiences. Once the proper infrastructure and equipment is in place at the Wolf Trap's Center for Education, we will be able to connect with our partnering organizations with videoconferencing facilities via TCP/IP. Both the Memphis Arts Council and Creative Arts Team have access to these facilities. Because the rest of the system is Internet based, participants simply need access to the Internet and an Internet browser that supports streaming video. The Website will be designed using Real Media format, so users will need Real Media Player to access the site. Most systems come with Real Media Player or it can be downloaded at no charge from the Internet.

A.2. Technical Alternatives: There are several alternatives to reaching these centers for video conferencing. ISDN dialup videoconferencing capability can be provisioned through a phone system to connect appropriate sites. Cable channels are being planned in case of Internet connectivity outages or low bandwidth locations. If facilities are not available in the participant's area, a conferencing center may be rented to facilitate videoconferencing.

A. 3. System Maintenance: All equipment will come with warranty and extended service contracts for support. Each site should provide its own technical support with Wolf Trap opening and operating a central information center or helpdesk to field support questions for Data, AV, Telephony, Print Shop, Internet, etc. A central problem reporting system will be in use to monitor, track, and resolve all technical trouble with standard operating procedures and consistently high levels of quality customer service. Service Level Agreements and Usage Policies will be established to meet support requirements.

A. 4. Scalability: During the first year of the stART smART Network pilot project, the minimum possible technology and equipment necessary for distance learning will be acquired and installed in Wolf Trap's Center for Education and two partnering regional sites. Plans have been developed for the second (growth) phase after the pilot project has been successfully completed, in which when program usage and the demand for equipment is expected to increase as the programs begin to replicate and expand. The third (completion) phase represents the final installations of Audio Visual equipment throughout the Center for Education.

B. Applicant Qualifications: The Wolf Trap Institute for Early Learning Through the Arts is the leading provider of professional development for early childhood educators in the areas of arts integration and performing arts instruction (Appendix A). Key project personnel will include Wolf Trap Foundation Education and IT staff. The stART smART Network Project Manager, an Education Tech Specialist, and part-time Web manager will be added to oversee all aspects of the project. (Appendix H)

C. Budget: The total expenses for stART smART Network are projected at \$1.5 million. Please see the attached budget and budget narrative for complete details.

D. Implementation: Planning for stART smART Network will begin in October 2002. Technology acquisition, implementation and training will take place in January through June 2003. From June 2003 – May 2006, Wolf Trap, Creative Arts Team, and Memphis Center for the Arts will develop and train staff, teaching artists/trainers, and participating teachers in stART smART Drama, Music, and Dance and the technology of stART smART Network. Please see Appendix I for complete work plan and timeline.

E. Privacy: As with all of Wolf Trap's education programs, all efforts will be made to ensure the privacy of the adult and child participants. At a minimum, Wolf Trap will obtain release forms from teachers and parents of the children who appear in video or photographs of the classroom activities; Wolf Trap will ensure that documented activities will be for educational use only; viewing access to the documented activities will be restricted to the participating network of teaching artists/trainers and teachers, and the security of those networks will be guarded with the latest technology.

F. Sustainability: In all of its endeavors, Wolf Trap strives to be the premier center for integrating performing arts, education, technology, and community. The successful implementation of stART smART Network fulfills a primary objective for the organization. With twenty-one years of experience in the field of early childhood education, the Wolf Trap Institute has demonstrated its ability to efficiently and effectively deliver needed services. Wolf Trap's Regional Programs have an extensive network of resources that will ensure that stART smART Network becomes an option for all early childhood education centers seeking professional development opportunities for their teachers.

V. Community Involvement

A. Partners: stART smART Network partners are:

- The Wolf Trap Foundation for the Performing Arts, Institute for Early Learning Through the Arts, operating from the Center for Education in Vienna, Virginia, serves the

Washington, D.C. metropolitan area, including northern Virginia and Baltimore, Maryland. Wolf Trap will develop stART smART Music for dissemination, as well as manage the development and dissemination of stART smART Network for all three sites.

- Memphis Arts Council/Center for Arts Education has administered the Memphis/Delta Wolf Trap program since 1990 serving communities surrounding Memphis, TN, including Arkansas and Mississippi. Memphis/Delta Wolf Trap will be the lead program in developing the dance component.
- Creative Arts Team of New York University is an award winning professional educational theatre company serving the five boroughs of New York City since 1974. Its Wolf Trap program is over 10 years old. CAT will create, implement, and disseminate stART smART Drama.
- Booz Allen Hamilton is an international management and technology consulting firm headquartered in northern Virginia. Booz Allen Hamilton has worked with Wolf Trap for over fifteen years, providing consulting services and financial support. Booz Allen Hamilton will provide technical expertise for the equipment acquisition, technology implementation and training, and networking and support needs of stART smART Network.

Each partner site has a long and successful history of working with Wolf Trap, implementing the Wolf Trap Institute methods of instruction, and working with early childhood education centers within their community. The sites were selected based on their interest in working with the stART smART program and expanding their work to a more sustained model by incorporating technology and distance learning. In addition, each site has potential access to the technology and support necessary for distance learning. (Appendix J – Letters of Commitment)

B. Obtaining and Sustaining Community Involvement: Wolf Trap and the two participating Regional Programs will provide services to community partners with whom we have existing long-term relationships, including local Head Start grantees and delegate agencies, schools systems, and other childcare networks. All of the participants will inform the development and implementation of stART smART Network. Teachers will apply to participate in stART smART Network, and will be required to have prior experience in a Wolf Trap residency program. The directors of each Regional Program will select the participants.

C. Support for End Users: Early childhood educators come from diverse backgrounds, and have varying degrees of experience with technology. In addition, early childhood education centers have limited budgets and varying degrees of access to technology. The stART smART Network program has been designed to work with teachers and centers at all levels of proficiency. The implementation of the stART smART Network program begins with one-week intensive training for the teachers and teaching artists/trainers in the stART smART methods of instruction and the technology used in stART smART Network. During the seven-week classroom residency, the technology component will be reinforced. The Project Manager and Education Technology Specialists hired to coordinate the stART smART Network program and other Wolf Trap education staff will be available to provide user support for technology and content.

VI. Evaluation: The stART smART Network program has been designed to provide consistent monitoring of the program implementation as well as opportunities for participating teachers and artists to provide feedback on the process so that project staff and artists will be able to clearly track the progress of the participating teachers in the stated anticipated outcomes. The formative and summative evaluation will be under the leadership of Alan Yaffe, Ph.D., University of Cincinnati and other evaluators forming a team with expertise in technology, arts education, literacy, professional development, early childhood education/curriculum. Dr. Yaffe is an independent evaluator and has conducted several major evaluations for the Wolf Trap Institute. (Please see Appendix K for a description of the evaluation plan, resume of Dr. Yaffe, and bios of proposed team members, Dr. Rima Faber and Dr. Mícheál Houlahan.)