



Arts as the Great Equalizer in Early Childhood Education

Wolf Trap Institute for Early Learning Through the Arts provides effective arts-integrated direct services to children while supporting systemic change through innovative, relevant professional development. The **performing arts** are effective in teaching children of multiple learning styles, supporting all developmental domains, and providing the foundation for all future learning. At the forefront of educational thinking and practice since 1981, Wolf Trap Institute coaches teachers in using active, arts-integrated learning techniques in the classroom, while simultaneously providing quality performing arts experiences for children birth to five.

Independent research of the Wolf Trap model, research from the arts education and early childhood fields, and Wolf Trap Institute's over 30 years of experience, confirms that the infusion of performing arts strategies into curriculum content and standards (including Common Core State Standards) provides powerful teaching tools that enhance all areas of development including language and literacy, social/emotional growth, health and wellness, STEM skills (Science, Technology, Engineering and Math) as well as 21st Century skills of critical thinking and problem solving, communication, collaboration, and creativity.

The Wolf Trap Institute addresses two primary concerns:

- 1.) The school readiness of children who live in economically disadvantaged circumstances, and
- 2.) Access to effective professional development for teachers who work with these children.

Promoting Innovation in Early Education

Wolf Trap's arts integrated approach fosters children's excitement and cultivates their natural curiosity about STEM subjects, increases children's language and emergent literacy and promotes health and wellness. Research in early childhood mathematics has demonstrated a causal link between professional development in mathematics and positive child outcomes (Clements and Sarama, 2007, 2008). Research also confirms that young children are able to learn STEM concepts as the brain is particularly receptive to learning math and logic between the ages of 1 and 4, and that early math skills are the strongest predictor of later academic success. A study found that at kindergarten entry, "early math concepts, such as knowledge of numbers and ordinality, were the most powerful predictors of later learning" (Duncan et al., 2007). Recent research of the Wolf Trap Early Childhood STEM Learning Through the Arts (Early STEM/Arts) program indicates that Wolf Trap's model of performing arts-integrated instruction in pre-Kindergarten and Kindergarten classrooms demonstrated significant impact on young children's math learning. Wolf Trap received a 4-year grant from the US Department of Education to develop and implement Early STEM/Arts in a public school district and conduct a research study of the program. In the scientifically-based study performed by American Institutes for Research (AIR, 2014), schools were randomly selected with early childhood classrooms identified as treatment and controlled groups. The AIR study results show that **children in classrooms participating in Wolf Trap Early STEM/Arts programs scored significantly better** on the Early Math Diagnostic Assessment – a nationally validated mathematics assessment tool— than their peers in the comparison classrooms who did not participate in the program.

Building the Skills of the Early Learning Workforce

The National Academy of Sciences' study, *Eager to Learn: Educating Our Preschoolers*, notes that the professional development of teachers is correlated with the quality of early childhood programs, and the quality of professional development predicts developmental outcomes for children – yet schools continue to lose funds for professional development. By emphasizing professional development for early childhood educators, Wolf Trap builds the skills of the early learning workforce. AIR measured Wolf Trap's model against the six features of quality professional development (PD) and the report confirms **the Wolf Trap model**



provides high quality PD for educators by thoroughly integrating the six features: form, duration, collective participation, content, active learning, and coherence. The evaluation team also measured the fidelity of the Wolf Trap model, confirming that the Wolf Trap model is indeed implemented with fidelity, meaning the elements of quality PD are delivered as intended. Wolf Trap's impact on children's learning is multiplied exponentially as these teachers use Institute models and strategies throughout their careers.

Enriching Early Education Experiences through the Arts – Language and Literacy

A 2006 independent study showed that preschool ***children who participated in a Wolf Trap Institute arts-integrated residency program, Fairfax Pages, scored significantly higher on standardized tests measuring six key areas: initiative, social relations, creative representation, language and literacy, logic and mathematics, and movement and music.*** Children were assessed before and after implementation of Wolf Trap's program using the standardized, nationally validated Child Observation Record (COR), an observational assessment tool designed by High/Scope Educational Research Foundation and implemented in Fairfax County Public Schools and early childhood programs administered by the Fairfax County Office for Children. (Klayman, 2006)

Enriching Early Education Experiences through the Arts – Health and Wellness

The naturally stimulating combination of music and movement experiences has an impact on healthy physical, emotional, social, cognitive, and language development skills in infants and toddlers. Developed by Wolf Trap Institute for Early Learning Through the Arts for Little Voices For Healthy Choices, A National Initiative for Early Head Start (EHS) and Migrant and Seasonal Head Start (MSHS) administered by the Early Head Start National Resource Center (EHS NRC) at Zero to Three, Wolf Trap Teaching Artists share dynamic, creative, developmentally appropriate movement and music experiences to be used in the home, day care and classroom setting. Wolf Trap Teaching Artists lead three hour Professional Development Workshops for early childhood educators and customized in-depth multi-session residencies designed to provide young children ages three months to three years old and their parents, caregivers, and teachers with early childhood music, drama, and movement activities aimed at supporting child development. Participants in Wolf Trap's health and wellness focused programs learn about the inherent connection that music and movement have in infant and toddler development and explore opportunities to apply these sensory experiences in the everyday routines of the classroom and home settings.

Commitment to Action – Partnerships

Wolf Trap Institute programs of direct instruction for children and professional development for early childhood educators have been replicated and are available at Wolf Trap National Affiliates in 17 cities throughout the US. As a part of Wolf Trap's recent Early STEM/Arts dissemination efforts to support children's learning nationwide, all Wolf Trap National Affiliates are now able to conduct Early STEM/Arts classroom residencies and teacher professional development in schools districts and early children centers in their states. Additionally, Wolf Trap has received major support from STEM industry corporations including Northrop Grumman Foundation, Boeing, Batelle, USAA, Telos and others to partner in early childhood classrooms throughout the US.

For additional information about partnering with Wolf Trap to provide Early STEM/Arts in your communities, call: Akua F. Kouyate-Tate, Senior Director, Education (703-255-1933) or email: education@wolftrap.org.