

Final Report: The Expressive Arts Outreach Project (2000 – 2003)
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Abstract

The Expressive Arts Outreach (EAO) project was funded in 2000 by the U.S. Department of Education's Office of Special Education Programs (OSEP) as a 3-year outreach project. EAO goals were (1) to integrate developmentally appropriate experiences in the expressive arts, with an emphasis on visual arts, into early childhood programs for children ages 3 to 8 with a wide range of disabilities; (2) to enhance the knowledge and skills of families, professional staff, and early childhood decision-makers so they can effectively use developmentally appropriate art activities and adaptations; and (3) to serve as a national resource and information exchange for art-related materials and products.

Between October 1, 2000 and September 30, 2003, the project served 23 sites. Forty-two teachers and 49 support staff in 63 classrooms (44 half day and 19 all day) served 2,143 children. During the 3 years, data were collected on 460 children, 192 with disabilities and 268 at-risk. Thirty children were involved in the project for more than one year.

Triangulated data from child measures, teachers, and families indicate that all children on whom data were collected engaged in a variety of expressive arts activities. They investigated the elements of expressive arts; increased flexibility, fluency, and level of expressiveness in art products; engaged in positive social interactions while participating in art activities; increased number of images in their art vocabulary; developed detail and complexity of art products; increased use of art images and activities as themes for communication; increased emergent literacy behaviors; and demonstrated a strong understanding of how to communicate thoughts and feelings through images and symbols. Improvement was shown in areas of cognition, communication, social skills, fine motor skills, and gross motor skills. Teachers reported that children decreased tactile defensiveness and demonstrated improved self-confidence, time on task, and participation.

Data triangulated from eight teacher data sources demonstrated positive changes in teacher behaviors included incorporating EA principles into curriculum and integrating art activities into a variety of curricular domains; making adaptations in classroom structure to facilitate EA activities; linking emergent literacy with EA activities; including art activities for children with physical disabilities; making adaptations to meet specific children's needs; and involving families in EA activities. Teachers included computers, specific software, or peripherals to meet developmental goals. They assessed children's artwork and growth using EA assessment measures and provided portfolio documentation of children's work.

Family participation was apparent at three levels (1) obtaining information (awareness); (2) assisting in art activities; (3) and conducting art activities. Family awareness of and participation in expressive arts activities increased over the 3-year period.

Dissemination included 42 awareness events, workshops, and conference presentations given locally, regionally, and nationally by EAO staff. Eight of those events involved collaborations with other agencies. Over the 3-year project period 1,894 people attended EAO workshops and presentations. Product development included revisions of training materials and of chapters in *ArtExpress*, the project's curriculum. EAO staff published a monthly site newsletter. An article related to EAO's work was published in *Closing the Gap*. Staff participated in the production of a national satellite broadcast and resulting video, *The Schoolyard Garden Project: Linking Expressive Arts to Learning*. The Expressive Arts project maintains a web site at www.wiu.edu/thecenter/art/.

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The Expressive Arts Outreach (EAO) project, housed at the Center for Best Practices in Early Childhood (the Center) at Western Illinois University, was funded in 2000 by the U.S. Department of Education's Office of Special Education Programs (OSEP) as a 3-year outreach project. The target population was 3 - 8 year old children with a wide range of disabilities, their families, teachers, and program staff. Project resources focused on providing experiences in the expressive arts used in the general curriculum to a traditionally underrepresented segment of the population: young children with disabilities.

The Expressive Arts (EA) model, developed and tested during a 5-year model demonstration period beginning in 1992, was developed for diverse ethnic and cultural groups. Individuals with disabilities and parents of children with disabilities were part of the planning, implementation, and evaluation process. A prior OSEP-funded EA outreach project, referred to in this report as EAO Phase 1, began in 1997.

Goals and Objectives

EAO goals were (1) to integrate developmentally appropriate experiences in the expressive arts, with an emphasis on visual arts, into early childhood programs for children ages 3 to 8 with a wide range of disabilities; (2) to enhance the knowledge and skills of families, professional staff, and early childhood decision-makers so they can effectively use developmentally appropriate art activities and adaptations; and (3) to serve as a national resource and information exchange for art-related materials and products. The goals were supported by five objectives related to accomplishing awareness activities; conducting training and technical assistance events; developing, revising, and disseminating EAO products and materials; providing workshops and

consultations on topics related to young children and the expressive arts; and collaborating with other agencies to support local, regional, and national activities supporting expressive arts for young children.

Theoretical Framework

The visual arts not only offer important benefits for children with disabilities, including access to the general curriculum required by IDEA 97, but they also offer alternative assessment for children with cognitive disabilities and those for whom English is a second language (Sclafani, 2002). Involvement in the arts contributes to young children's development and learning, affecting their cognition, communication, social, and physical development (Task Force & Goldhawk, 1998). The expressive arts—defined in EAO as the visual arts (two-dimensional forms [i.e., drawing, painting, printmaking] and three-dimensional forms such as sculpture)—are recognized as a vital part of the regular early childhood curriculum and are now included as a core academic subject (Arts Education Partnership, 2001, 2002; U.S. Department of Education, 2001; Illinois State Board of Education, 2002; Sclafani, 2002). Unfortunately, understanding the significance of expressive arts on young children with disabilities has not enjoyed the widespread attention it deserves in special education.

Arts and Emergent Literacy

Art constitutes a critical force in children's growth as symbol makers (Dyson, 1990; Katala, 1998). During the early years, children become fluent and inventive users of symbols, including gestures, pictures, drawings, and spoken and written words (Berk & Winsler, 1995; Dighe, Calomiris, & Van Zupphen, 1998; Golomb, 1992; Harrison, 1999; Jalongo & Stamp, 1997; Mayesky, 1998; Vygotsky, 1978). A child's ability to deal with representation is evidenced as he/she makes purposeful marks on paper (Gardner, 1980).

Children use drawing to infuse meaning into written language (Dyson, 1990). Over time, a child's experimental scribble evolves, becoming a house, a person, a mock letter, an identifiable letter, then a word (initially often the child's name) — symbols a child uses to clarify a message. Similarities between children's art and "writing" include: (1) marks occur first as basic scribbles; (2) both art and writing involve learning shapes that are a basis of perception; (3) children talk as a way of planning when they draw or 'write;' (4) children can 'read' or interpret their marks; and (5) children's marks and symbols give adults leads for communicating with the child (Bishop & Engley, 1992). As they gain experience, children recognize that symbols can be used with other symbols to build a more complex symbol system (Davis & Gardner, 1997).

The evolutionary pattern of children's mark making, from scribble to image to word, occurs not only with 'typical' children, but also with those who have disabilities. Very young children with disabilities can develop concepts of literacy (Erickson, Koppenhaver, Yoder, & Nance, 1997; Fitzgerald & Needlman, 1991; Godt, Hutinger, Robinson, & Schneider, 1999; Hutinger, et al., 1998; Katims, 1991,1994; Klenk, 1994; Koppenhaver, Coleman, Kalman, & Yoder, 1991; Pierce & McWilliams, 1993; Pierce & Porter, 1996).

Benefits of the Arts

The benefits of art programs were recognized by President Bush in a written address to the nation's art leaders (July 28, 2001). He wrote, "*The arts allow us to explore new worlds and to view life from another perspective. They also encourage individuals to sharpen their skills and abilities and to nurture their imagination and intellect. I applaud quality projects that introduce children to the arts.*"

Participation in the arts offers positive outcomes demonstrated in practice, research, and the Expressive Arts (EA) model data (Hutinger, 1998). The arts are rich in sensory experiences

involving interactive processes that contribute to children's growth in the following areas:

- (1) *cognitive development and problem solving* (Alvino, 2001; Chapman, 1998; Deasy, 2002; Fox & Diffily, 2001; Gardner, 1980, 1993; Getty Education Institute for the Arts, 1996; Herbert, 2002; Jalongo, 1995; Mayesky, 1998; Neely, 2001; President's Committee on Arts and Humanities, 1996; Schwartz & Bloomgarden, 2001; Stevens, 2002);
- (2) *communication and language development* (Edwards, Gandini, & Forman, 1998; Mayesky, 1998; Neely, 2001; Stevens, 2002; Siegesmund, 2002);
- (3) *social development* (Mayesky, 1998; Neely, 2001; Stevens, 2002; Siegesmund, 2002);
- (4) *motor development* (Mayesky, 1998; Neely, 2001); and
- (5) *creativity* (Chapman, 1998; President's Committee on Arts and Humanities, 1996; Schirmacher, 1993, 2002).

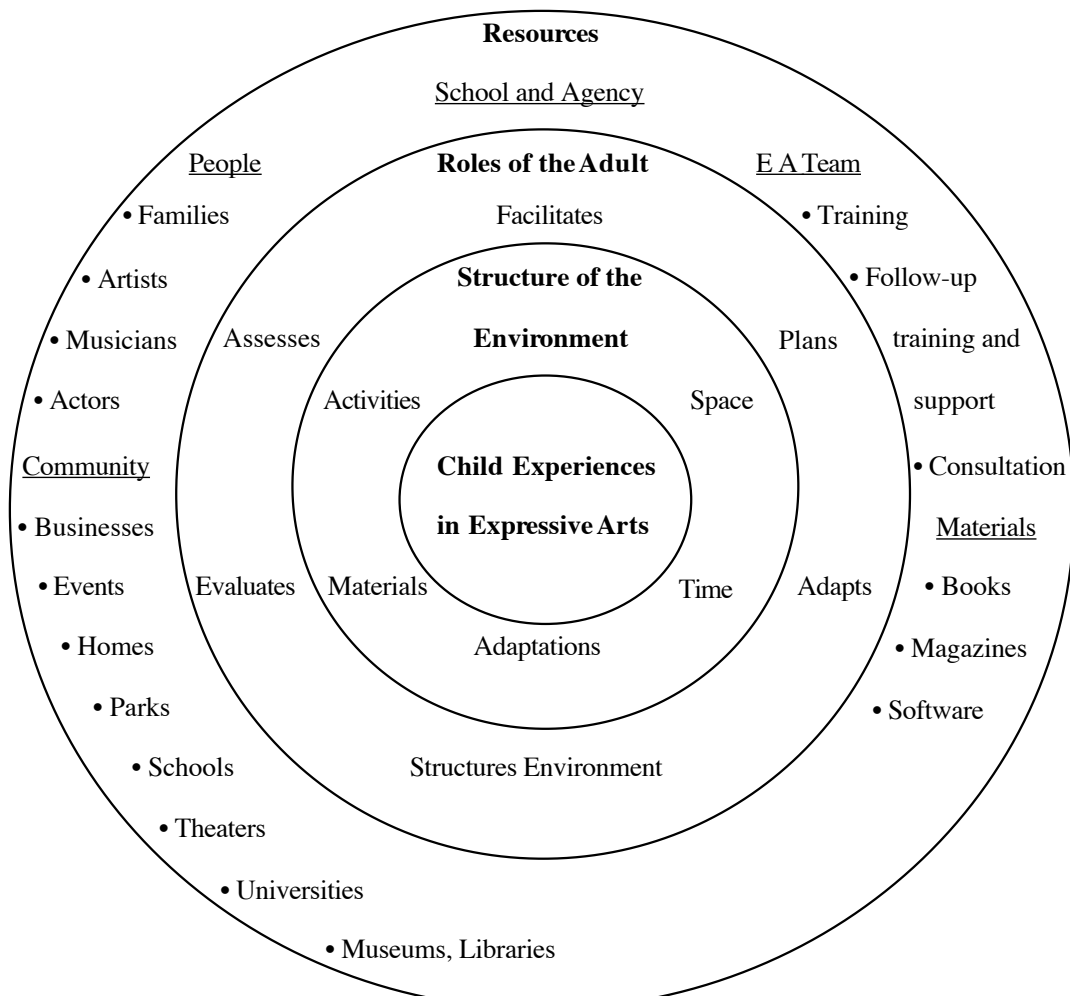
Reggio Emilia's conception of the '*hundred languages of children*' (Edwards, Gandini & Forman, 1998) and Gardner's (1993, 2000) propositions related to multiple intelligences recognize the important roles the arts play in the development of young children, including those with special needs. Unfortunately, children with disabilities are seldom afforded time to explore materials and/or to participate in child-initiated expressive arts activities. Sometimes special education staff may believe there are '*more important things to do.*' However, omitting or downplaying the arts is a disservice to young children with disabilities and their families. Since the arts are part of the early childhood curriculum for children *without* disabilities, then *the arts, with appropriate adaptations, must be a part of the curriculum for children with a wide range of disabilities.*

Description of the Expressive Arts Model

The elements of the EA model, including families, children, staff, and a wide range of resources, are shown in Figure 1. The core element is *Children's Experiences in the Expressive Arts*,

made possible by three supporting elements, the *Structure of the Environment*, the *Roles of the Adult*, and *Resources*. *Structure of the Environment* focuses on physical elements such as appropriate organization of space, time, and materials. Included are adaptations of materials and activities that can be used differently by different children, depending upon specific needs and developmental levels. *Roles of the Adult* (teacher, program assistant, support staff, or family members) emphasizes the role of *responsive facilitator*: planning, structuring activities, adapting materials and activities, and evaluating. Adults are responsible for the structure of the environment. *Resources* includes the supports that make EA viable: the resources of the sponsoring school or agency; families, homes, communities; museums, theaters, libraries; artists, musicians, actors; books, magazines, software; training, follow-up, and consultation.

Figure 1. The Expressive Arts Model



Developed for diverse ethnic and cultural groups of children, ages 3 to 8, with mild to severe disabilities, the EA model is based on children's interactions with materials, with other children, and with adults, as opposed to adult images (coloring books, patterns) and behaviors prompted by imitation, copying, and adult direction. The model shifts the focus from teacher-directed to child-initiated activities, thus positively impacting services at the replication sites (*Site Visit Report*, May 1995). Children's experiences include activities organized into a curriculum¹, *ArtExpress*, designed to incorporate the visual arts into naturally-occurring, ongoing daily events. Children draw and paint using a variety of crayons, markers, chalks and paints; make three-dimensional images using an assortment of paper, scraps, ribbon, yarn, play dough, clay, wood, and found materials; and have repeated opportunities to explore and determine properties of materials.

Low- and high-tech adaptations give almost all children access to EA activities. Low-tech adaptations include taping crayons together or wrapping foam around markers for children who cannot grip tightly; taping a paint brush to a dowel with strapping tape; inserting a thick-handled paint brush into foam pipe tubing; attaching velcro strips to building blocks; attaching contact paper, sticky side up, to a board to use as an adhesive surface for making a collage; and taping paper to a table or wheelchair tray so it doesn't shift as the child draws. High-tech adaptations involve computers, switches, touch screens, touch tablets, and graphics software, which offer participation opportunities to children who cannot use their hands to make art. Computers, with their accompanying peripherals and software, serve as another medium for expression or as necessary tools for art participation for children with severe physical disabilities.

The EA model is aligned with national standards for visual arts, developed in 1994 by the Consortium of National Arts Education Associations (CNAEA), and supports the Illinois Early

¹ "Curriculum" is defined in EA as a set of educational experiences and diverse strategies based on the everyday life experiences of young children (Hutinger, 1994).

Learning Standards (IELS) (ISBE, 2002). The National Standards for Art Education (Visual Arts) include the following: (1) Understand and apply media, techniques, and processes; (2) Use knowledge of structures and functions; (3) Choose and evaluate a range of subject matter, symbols, and ideas; (4) Understand the visual arts in relation to history and cultures; (5) Reflect upon and assess the characteristics and merits of their work and the work of others; and (6) Make connections between visual arts and other disciplines (CNAEA, 1994).

One of the IELS Fine Arts Goals is *know the language of the arts*. Its benchmarks are to *investigate the elements of visual arts and describe or respond to own creative work or the creative work of others*. Another IELS Fine Arts Goal, *through creating and performing, understand how works of art are produced*, has as a benchmark *uses creative arts as an avenue for self-expression* (ISBE, 2002). ArtExpress activities promote the attainment of visual arts standards for young children, including those with disabilities, and support IELS benchmarks connecting visual arts and early literacy: *uses scribbles, approximated letters, or known letters to represent written language; understands that pictures and symbols have meaning; and identifies labels and signs in the environment*.

Effectiveness of the Expressive Arts Model. Children at all sites that participated in EA made steady gains in aspects of cognition; gestural, oral, and written communication; social development; gross motor and fine motor development. Portfolio assessment data collected during model development and field-testing indicated children with disabilities, when given the opportunity, progress through the same stages of image development and emergent writing as do 'typical' children, indeed, children worldwide (Kellogg, 1970), with differences only in rate.

Evidence of the effectiveness of the EA model is contained in original data, field test data demonstrating results similar to results collected during model demonstration, and in the *Site Visit*

Report (May 1995), written by a site review team assigned by OSEP, the project's funding agency, to evaluate EA's effectiveness. According to the *Site Visit Report*, EA is a sound, scientifically-researched, state-of-the-art model. The model's strengths, as timely today as they were when the model was developed, include naturalistic intervention methods, adaptations allowing access to art materials for children with physical disabilities, extensive analysis of children's portfolios, and documented improvement in children's art abilities.

The *Site Visit Report* notes: "*This model is built upon a sound theoretical base...the strengths of the project include: documented improvement in children's art abilities; parent and teacher reports of improvement of collateral skills including emergent writing, attention span, language, social skills, problem solving, and self management; increased positive interactions between parents and children in non-school settings; enhanced parent perception of their child's competence; increased opportunities for sibling interactions during art. . . encourages children's exploration and learning through multisensory activities.*" The report also notes that the model produces "*increased public awareness resulting from displays of art products and 'art parties;'* *systematic support of teachers' current practices and innovative ideas; and increased use of low cost, previously discarded material as art media.*"

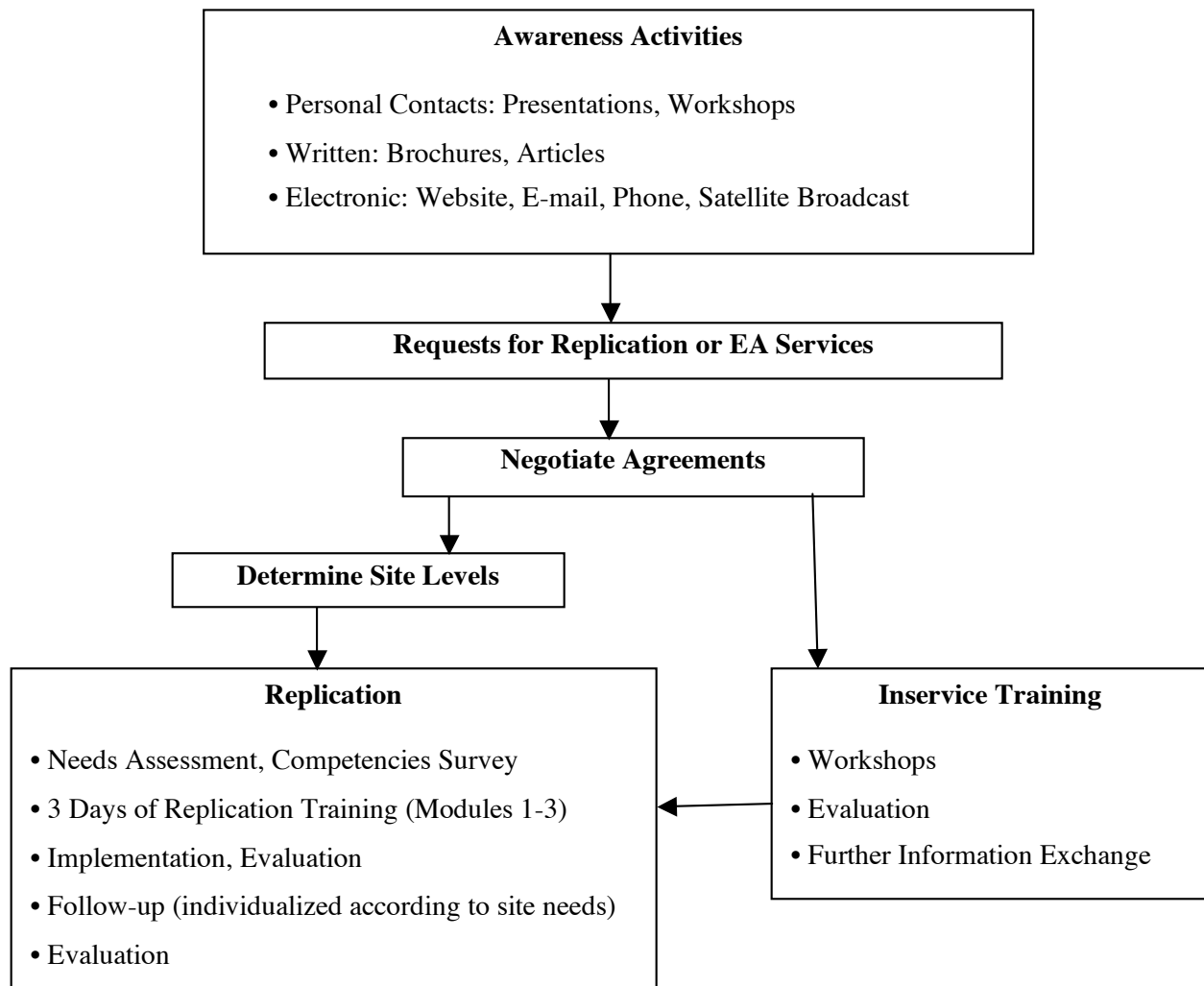
Description of Outreach Procedures

Figure 2 on page 9 shows the Outreach process, including awareness activities and replication training based on initial face-to-face learning with individualized follow-up services, a concept supported by Huberman (1990). Outreach also included workshops and other collaborative events not directly associated with replication efforts.

Awareness. Awareness activities were designed to acquaint the target audience with EAO services and to recruit replication site participants. Activities included disseminating brochures,

presenting at conferences, conducting workshops, maintaining a website, writing newsletter articles, and presenting expressive art information during a satellite broadcast. Awareness activities resulted in 14 new replication sites.

Figure 2. Expressive Arts Outreach Process for Replication and Training



Replication. Each site's administrator and participating teacher(s) first signed a replication agreement that detailed their responsibilities to the project and EAO's responsibilities to the site. Site teachers and support staff attended training. Families whose children were in the site classrooms were also invited to participate.

Prior to site training, personnel completed the *Site Needs Assessment* and *Site Staff*

Competencies. (See descriptions beginning on page 23). Training consisted of a 3-day workshop, depending on participant needs and available time. Sites could choose to complete the three modules within the 3-day span or, since some administrators were unwilling to allow teachers to be gone from classrooms 3 days in a row, to complete one day of training and then schedule others at later dates. If sites chose multiple separate training sessions, module content was reorganized to meet individual site needs. For example, data collection would be covered as part of Module 1 if Module 2 was not covered the day after Module 1. Training procedures were based on principles of adult learning (Knowles, 1978; Knowles, Holton, & Swanson, 1998; Krupp, 1989). The *Model Fidelity Profile* determined the degree to which the site replicated the model.

Following training, teachers wrote action plans for implementing what they learned. They shared the results of their implementation with EAO staff through reports and with other replication site teachers through information sent to *ArtExpress*, the project's monthly newsletter.

Training content. Three modules contained EA training content. *Creating a Firm Foundation for ArtExpress*, Module 1, was presented the first day of training. Key content included *ArtExpress Overview and Philosophy; Children and the Arts; The Responsive Adult; Arranging the Art Environment; Adapting Time, Space, Tools, Materials, and Activities* (included creating low-tech adaptive tools and materials so children with disabilities could participate in art activities) and *Making the Home-School Connection*.

Contents of Module 2, *Developing Skills to Implement ArtExpress*, were covered on the second day. Key components of this module were *Understanding the Arts/Literacy Connection; Integrating the Arts throughout the Classroom Curriculum; Maintaining Children's Portfolios – Observing and Documenting Children's Growth; and Data Collection Procedures*.

Contents of Module 3, *Using Technology to Enrich the ArtExpress Curriculum* were covered on the third day of training. Key components of this module were *Exploring Expressive Arts Software; Adapting and Adding Peripherals* (included investigating high-tech adaptations); and *Expressive Arts on the Internet*.

Print and video materials, in addition to software and PowerPoint demonstrations, supported

module content. Participants were given plenty of opportunities for discussion and sharing and for hands-on experimentation with materials and equipment.

Follow-up support. Once a site began replication, EAO staff provided support through on-site visits, a monthly newsletter, phone conversations, and via mail, E-mail, or fax correspondence. This support was extended not only to new Phase 2 replication sites but also to sites previously established during model development and Phase 1 outreach.

Inservice. EAO conducted 17 workshops for 11 agencies that were not involved in replication. Three agencies requested training on the three EA modules. Eight agencies requested workshops on specific topics including *Adapting the Expressive Arts for All Children; Integrating Arts throughout the Classroom Curriculum; Making the Home-School Connection; Linking Expressive Arts to Learning; Arranging the Environment; and Using Technology to Enrich the ArtExpress Curriculum.*

Participants

EAO Phase 2 participants included teachers from self-contained, at-risk, inclusion, and Pre-K sites who began replicating the EA model during the model development phase (1992 to 1995), the field test phase (1995 to 1997), and EAO Phase 1 (1997 to 2000), as well as teachers from new sites replicating the EA model during EAO Phase 2 (2000 to 2003). During Phase 2, the nine replication sites established prior to Phase 2, as well as the 14 new Phase 2 sites, had access to follow-up training, technical assistance, and consultation. Teachers in all 23 sites served as data collectors. They observed behaviors while children engaged in expressive art experiences, collected child work-samples, and evaluated child growth over time.

Table 1 on page 12 provides information about the 23 sites. During Phase 2, two of the sites housed self-contained special education classrooms serving children with multiple and severe disabilities. Four sites had self-contained special education classrooms serving children with mild to moderate disabilities. Six sites had inclusion classrooms serving children at-risk and

Table 1. Number of Expressive Arts Outreach Sites and Number of Children Observed for Data Collection from 2000 to 2003

EAO Site Location	Classrooms			Teachers	Support Staff	Type of Classroom	Children Served for 3 Years	Children Observed for Data Collection			Total Child Data	Children Attending	
	AM	PM	All Day					Yr 1	Yr 2	Yr 3		2 Yrs	3 Yrs
Continuation Sites (2 Sites)													
Galesburg, Illinois	6	6		7	6	Inclusion	432	07	06	05	18	04	01
Carthage, Illinois			1	1	5	Self-contained	27	09	06	—	15	02	04
Continuing Field-test Replication Sites (2 Sites)													
Plymouth, Illinois	1	1		1	1	Self-contained	72	06	06	08	20	05	00
Macomb, Illinois*	2	2	1	3	6	Self-contained	140	18	10	23	51	05	00
Continuing Outreach Phase 1 Replication Sites (5 Sites)													
Good Hope 1, Illinois	1	1		1	1	Self-contained	40	05	04	—	09	02	00
NOW Head Start, East Moline, Illinois			1	1	1	At-risk	120	04	06	—	10	00	00
NOW Head Start, Kewanee, Illinois			4	4	4	At-risk	240	15	01	12	28	00	00
NOW Head Start, Moline, Illinois			2	2	2	At-risk	120	7	04	10	21	00	00
NOW Head Start, Silvis, Illinois			3	3	3	At-risk	180	13	12	07	32	01	00
Year 1 - Phase 2 EAO Replication Training (7 Sites)													
Avon, Illinois			1	1	1	Inclusion	63	09	09	09	27	04	00
Canton 1, Illinois**	1	1		1	1	Pre-K	20	10	—	—	10	00	00
McFarland, Wisconsin	1	1		1	1	Inclusion	60	10	10	10	30	00	00
NOW Head Start, Aledo, Illinois			1	1	1	At-risk	60	07	07	06	20	00	00
NOW Head Start, Atkinson, Illinois			1	1	1	At-risk	60	03	01	—	04	00	00
NOW Head Start, Colona, Illinois			1	1	1	At-risk	60	04	06	07	17	00	00
Silvis, Illinois	1	1		1	1	Self-contained	72	07	08	08	23	02	00
Year 2 – Phase 2 EAO Replication Training (5 Sites)													
Canton 2, Illinois**	1	1		1	1	Pre-K	78	—	08	09	17	00	00
Champaign, Illinois	6	6		6	6	Inclusion	156	—	55	—	55	00	00
Good Hope 2, Illinois			1	1	1	Pre-K	36	—	10	13	23	00	00
NOW Head Start, Carbon Cliff, Illinois			1	1	1	At-risk	40	—	04	02	06	00	00
Savoy, Illinois	1	1		1	1	Inclusion	16	—	09	—	09	00	00
Year 3 – Phase 2 EAO Replication Training (2 Sites)													
Bushnell, Illinois			1	1	1	Inclusion	24	—	—	07	07	00	00
Rushville, Illinois	1	1		1	2	Self-contained	27	—	—	08	08	00	00
Sub-total:	22	22	19								460***	25	05
Total:	63			42	49		2,143	134	182	144			

* During Yr 2, one EAO teacher accepted a position elsewhere. She returned to the Macomb classroom in Yr 3.

** The EAO site teacher transferred from Canton 1 to Canton 2, which are two different schools in the same community.

*** Of the 460 children, 30 are repeats (25 attended early childhood programs for two years and five attended their early childhood programs for three years).

children with disabilities. Eleven sites had classrooms serving children at-risk (3 Pre-K and 8 Head Start).

The 23 sites contained 63 classrooms (44 half day and 19 all day) served by 42 teachers and 49 support staff. Over the 3 years, the classrooms served 2,143 children. Table 2 provides a breakdown by year of disabling conditions as defined under IDEA. Over the 3 years, data were collected on 460 children, 30 of whom were repeats (i.e., 25 participated for 2 years and 5 participated for 3 years). Of the 460 children, 58% ($n = 268$) were children *at-risk*. The other 192 (42%) children had disabilities. Disabling conditions most frequently reported during the 3 years were *speech and language* ($n = 79$, 17%) and *developmentally delayed* ($n = 72$, 16%).

Table 2. Distribution of Disabling Conditions Over the 3-Year Period

Condition	2000-2001	2001-2002	2002-2003	Total	Percent
At-risk	66	112	90	268	58%
Speech and Language	31	28	20	79	17%
Developmentally Delayed	22	23	27	72	16%
Multiple Disabilities	9	7	0	16	3%
Learning Disabled	1	5	1	7	2%
Other Health Impaired	4	6	2	12	3%
Orthopedic Impairment	0	1	2	3	.7%
Visually Impaired	0	0	2	2	.4%
Autism	1	0	0	1	.2%
Children on whom data was collected	134	182	144	460*	100%
* Of the 460 children observed during the 3 years, 30 children were repeats (25 participated for 2 years and 5 for 3 years).					

Site Descriptions

By the end of the 3-year Phase 2 outreach period, EAO staff had worked with two continuation sites, seven continuing replication sites, and 14 new replication sites. All 23 sites provided speech/language therapy, occupational therapy, physical therapy, and other services as required by the children's IEPs. Children served in site classrooms ranged in age from 3 to 8 years. The 23 sites are listed and briefly described in the following sections and in Table 1 on page 12.

Model, Field-test, and Phase 1 sites. At the beginning of EAO Phase 2, the nine previously established sites were successfully implementing the EA model as evidenced by the *Model Fidelity Profile* (see page 23). All nine sites (1) participated in initial EA training as well as follow-up training, technical assistance, and inservice training offered by EA staff; (2) maintained facilities, equipment, and expressive art materials for replicating the EA model; (3) implemented *ArtExpress* curriculum activities, using both low- and high-tech adaptations as needed; (4) involved families in opportunities to participate in art activities with their children; and (5) collected and submitted child, teacher, and family data to EAO staff for analysis.

Continuation sites established during model development. Two sites established during the Expressive Arts' model development phase (1992-1997), L.T. Stone Early Childhood Program in Galesburg, Illinois, and West Central Illinois Special Education Cooperative in Carthage, Illinois, continued their involvement with the project in both outreach Phase 1 (1997-2000) and outreach Phase 2 (2000-2003). L.T. Stone is an inclusion program, and West Central Illinois Special Education Cooperative is a self-contained program.

Continuing field test replication sites. During the 2-year field-testing period that was part of the original 5-year model development project, two sites were established that continued replication activities in both outreach Phase 1 and outreach Phase 2. Those sites were the Southeastern Early Childhood Program in Plymouth, Illinois, and the MacArthur Early Childhood Program in Macomb, Illinois. Both have self-contained programs.

Continuing outreach Phase 1 replication sites. Five sites established during Phase 1 continued to replicate the EA model during Phase 2. These sites include the Northwestern Early Childhood Program in Good Hope, Illinois, a self-contained classroom, and the Project NOW Head Start Programs in East Moline, Kewanee, Moline, and Silvis, Illinois, housing classrooms serving

children at-risk. The Good Hope and East Moline sites participated Years 1 and 2.

EAO Phase 2 Replication sites. During the 3 years of Phase 2, EAO provided training and outreach services to 14 new replication sites. Nineteen teachers were trained to use the EA model. Over the 3 years, their classrooms served 650 children.

Year 1. Seven sites received EAO training and began replicating the EA model during Year 1 (2000-2001) of Phase 2. These sites included inclusion classrooms in Avon Early Childhood Program in Avon, Illinois, and the Conrad Elvehjem Early Learning Center in McFarland, Wisconsin; the Lincoln Pre-K Program, Canton, Illinois; the George O. Barr Early Childhood Program in Silvis, Illinois, a self-contained classroom with a morning and afternoon program; and three Project NOW Head Start sites in Aledo, Atkinson, and Colona, Illinois, serving children at-risk. The Canton teacher was involved all 3 years but moved to a different school prior to Year 2. The Atkinson Head Start site did not participate in Year 3.

Year 2. Five sites began replicating the EA model during Year 2 (2001-2002) of Phase 2. These sites included Westview Pre-K Program, Canton, Illinois, and the Northwestern Pre-K Program, Good Hope, Illinois; inclusion classrooms in the Marquette Early Childhood Program, Champaign, Illinois; and the Savoy Early Childhood Program, Savoy, Illinois; and the Project NOW Head Start Program in Carbon Cliff, Illinois, serving children at-risk. The Champaign and Savoy sites did not participate in Year 3.

Year 3. Two sites replicated the EA model during Year 3 (2002-2003) of Phase 2. These sites included the Tree House Day Care Center, Bushnell, Illinois, and the Washington Early Childhood Program, Rushville, Illinois. The Bushnell program is inclusive and the Rushville morning and afternoon classrooms are self-contained.

Levels of Involvement

Each replication site was classified according to levels of existing experience and skill in implementing and integrating the EA model in classrooms. EAO *Site Staff Needs Assessments* and *Model Fidelity Profile* (see page 23) were used to determine the levels for sites. Sites were placed within one of three levels, described below. Figure 3 shows the progression of sites through the Levels of Involvement.

Level I sites' team members were new to the concepts of integrating the expressive arts into their curriculum. Initial orientation and awareness training included (1) the EA philosophy with a child-appropriate curriculum based on individual child goals; (2) incorporating EA teaching strategies; (3) adapting time, materials, and activities; (4) making materials accessible; (5) assessing children's art using EA measures; and (6) using the EA curriculum. EAO staff provided additional training and follow-up until adequate skills had been acquired for site staff to advance to Level II, as measured by *Site Staff Needs Assessments* and *Model Fidelity Profile*. All Level I site teams adopted an EA philosophy; could articulate the benefits of creating a positive expressive arts environment; made time, space, and art materials accessible; demonstrated responsive teaching strategies; and collected artwork samples for child data before moving to Level II.

Level II sites' team members developed new skills as they implemented the EA model into their classrooms. These sites received initial EA training, then began implementation of the model and data collection. EA staff provided follow-up to assist site staff in gaining needed competencies for full implementation of the model. Training topics included (1) EA teaching strategies focusing on individual child goals; (2) EA tools and experiences to meet individual child needs; (3) children's art assessment using various EA measures; (4) family involvement; and (5) curriculum integration through the expressive arts. Site staff acquired and demonstrated EA elements, created

Figure 3. Progress of EAO Sites Through Levels of Involvement, Years 1-3

	Level I	Level II	Level III
Year 1 00-01	<ul style="list-style-type: none"> • George O. Barr Early Childhood Program, Silvis, Illinois • Northwestern Early Childhood Program, Good Hope, Illinois • Project NOW Head Start, Aledo, Illinois • Project NOW Head Start, Atkinson, Illinois • Project NOW Head Start, Colona, Illinois • Project NOW Head Start, East Moline, Illinois • Project NOW Head Start, Kewanee, Illinois • Project NOW Head Start, Moline, Illinois • Project NOW Head Start, Silvis, Illinois 	<ul style="list-style-type: none"> • Avon Early Childhood Program, Avon, Illinois • Conrad Elvehjem Early Learning Center, McFarland, Wisconsin • Lincoln Pre-K Program, Canton, Illinois 	<ul style="list-style-type: none"> • LT Stone Early Childhood Program, Galesburg, Illinois • MacArthur Early Childhood Program, Macomb, Illinois • Southeastern Early Childhood Program, Plymouth, Illinois • West Central Illinois Special Education Cooperative, Carthage, Illinois
Year 2 01-02	<ul style="list-style-type: none"> • Northwestern Pre-K Program, Good Hope, Illinois • Project NOW Head Start, Aledo, Illinois • Project NOW Head Start, Atkinson, Illinois • Project NOW Head Start, Carbon Cliff, Illinois • Project NOW Head Start, Colona, Illinois 	<ul style="list-style-type: none"> • Avon Early Childhood Program, Avon, Illinois • George O. Barr Early Childhood Program, Silvis, Illinois • Marquette Early Childhood Program, Champaign, Illinois • Northwestern Early Childhood Program, Good Hope, Illinois • Project NOW Head Start, East Moline, Illinois • Project NOW Head Start, Kewanee, Illinois • Project NOW Head Start, Moline, Illinois • Project NOW Head Start, Silvis, Illinois • Savoy Early Childhood Program, Savoy, Illinois • Westview Pre-K Program, Canton, Illinois 	<ul style="list-style-type: none"> • Conrad Elvehjem Early Learning Center, McFarland, Wisconsin • LT Stone Early Childhood Program, Galesburg, Illinois • MacArthur Early Childhood Program, Macomb, Illinois • Southeastern Early Childhood Program, Plymouth, Illinois • West Central Illinois Special Education Cooperative, Carthage, Illinois
Year 3 02-03	<ul style="list-style-type: none"> • Project NOW Head Start, Aledo, Illinois • Project NOW Head Start, Colona, Illinois • The Tree House Day Care Center, Bushnell, Illinois • Washington Early Childhood program, Rushville, Illinois 	<ul style="list-style-type: none"> • George O. Barr Early Childhood Program, Silvis, Illinois • Northwestern Pre-K Program, Good Hope, Illinois • Project NOW Head Start, Carbon Cliff, Illinois • Project NOW Head Start, East Moline, Illinois • Project NOW Head Start, Kewanee, Illinois • Project NOW Head Start, Moline, Illinois 	<ul style="list-style-type: none"> • Avon Early Childhood Program, Avon, Illinois • Conrad Elvehjem Early Learning Center, McFarland, Wisconsin • LT Stone Early Childhood Program, Galesburg, Illinois • MacArthur Early Childhood Program, Macomb, Illinois • Project NOW Head Start, Silvis, Illinois • Southeastern Early Childhood Program, Plymouth, Illinois • West Central Illinois Special Education Cooperative, Carthage, Illinois • Westview Pre-K Program, Canton, Illinois

adaptive tools and experiences, used the portfolio system of child assessment, documented increased number of family participation events, and integrated the visual arts in at least two content areas before moving to Level III.

Level III sites fully implemented the EA model and served as demonstration sites. Sites' team members (1) created and implemented a variety of adaptive tools and experiences based on individual children's needs; (2) demonstrated proficiency in assessment; (3) expanded EA integration; (4) promoted the EA model by training others; and (5) contributed to the EA curriculum.

As shown in Figure 3, at the end of the 3 years four sites were at Level I, including two sites that began replication in Year 3 and two Head Start sites that experienced numerous staff reassignments and turnovers. Five sites were at Level II, and eight sites were at Level III. By Year 3, six sites were no longer involved in project data collection. See Table 1, page 12.

Method

Qualitative and quantitative data were collected on children, teachers, and families. Figure 4 lists the data sources and data collection schedules. The 460 children (see page 12) observed for data collection in EAO continuation, continuing replication, and replication site classrooms from October 2000 to September 2003 (along with their classmates) were provided curricular activities designed to incorporate visual art experiences into typically occurring, ongoing, daily events.

Teachers were asked to use the following criteria to select children for data collection. They were to select children with disabilities from 3 to 8 years old and to select children who, to the best of the teacher's knowledge, would be in the program for the entire school year. If children met criterion 1, the teacher was to select all children if her class size was 10 or less. If more than 10 children were in the class, teachers were to randomly select at least 10 children. If children with and without disabilities were present in the classroom, the teacher was to select all children with

disabilities plus children at-risk to equal 10. Children without disabilities were randomly selected. If the teacher had both a morning and an afternoon class, she was asked to use the criteria to select five children from each section. Data were not gathered on children unless parents/guardians gave permission.

Figure 4. Child, Teacher, and Family Data Sources and Collection Schedules

Child Data Sources and Collection Schedules	
<i>Visual Art Developmental Scale</i>	Pre-post (fall and spring)
<i>Visual Art Rating Scale</i>	Pre-post (fall and spring)
Observational Reports	On-going
<i>Site Satisfaction Questionnaire</i>	Yearly (spring)
<i>Family Questionnaire</i>	Pre-post (fall and spring)
Teacher Data Sources and Collection Schedules	
<i>Site Needs Assessment</i>	Before EAO training
<i>Site Staff Competencies</i>	Pre-post (before EAO training and after implementing the EA model)
<i>Model Fidelity Profile</i>	During EAO training and annually
<i>Site Teacher Action Plan</i>	During EAO training
Follow-up Contact Log	On-going
<i>Family Questionnaire</i>	Pre-post (fall and spring)
<i>Site Satisfaction Questionnaire</i>	Yearly (spring)
Reports to <i>ArtExpress</i> Newsletter	On-going (from September to June)
Family Data Source and Collection Schedule	
<i>Family Questionnaire</i>	Pre-post (fall and spring)

Data Sources

Child data sources. Child data were gathered from child observations, teacher ratings, parent ratings, photos or videotapes of children participating in a variety of activities, analyses of children's images, and the art portfolios maintained for each child from the beginning to the end of each year. Quantitative measures include the *Visual Art Developmental Scale (VADS)* (The Center, 1995a) and the *Visual Art Rating Scale (VARS)* (The Center, 1995b). Portfolio contents were rated using the *VARS*. The *VADS* and the *VARS* were developed and used by EA staff during the 5-year model development period (1992-1997), used in Phase 1 of EAO (1997-2000), and used again

during EAO Phase 2 (2000-2003) to help project staff assess children's performance. Site teachers observed children in their classrooms, collected artwork samples, filled out EAO measures for each child observed, and submitted data each fall and spring to EAO staff for analysis.

The Visual Art Developmental Scale. The *VADS* is a 34-item instrument designed to assess the progress of children (ages 3-8) with mild to severe disabilities throughout the year in the areas of cognition, communication, social, gross motor, and fine motor development. Children were observed and rated on each item from "0" *does not do* to "6" *does independently frequently*. To ensure content validity, this instrument incorporates and is congruent with the Illinois Early Learning Standards (ISBE, 2002), as well as standards established by the Arts Education Partnership (2001, 2002), the U.S. Department of Education (2001), and those supported by Deasy (2002), Schirmacher (2002), and Colbert and Taunton (1994). The *VADS* consisted of five items:

- (1) A *Cognitive Score* based on 11 cognitive behaviors, including such indicators as "demonstrates basic knowledge of concepts," "develops mental images (representations)," and "develops recognizable symbols."
- (2) A *Communication Score* based on seven communication skills, including "listens and understands simple directions," "talking and signing with peers and adults increases," and "writes using mock letters, real letters, or both."
- (3) A *Social Score* based on 10 items, including "interacts with peers in play," "interacts easily with familiar adults," and "seeks adult help when appropriate to resolve conflicts."
- (4) A *Gross Motor Score* based on two items: "uses large muscle, whole arm movements in art activities" and "crosses the midline when drawing, painting, and constructing."
- (5) A *Fine Motor Score* based on four items: "grips drawing and painting tools appropriately, according to ability," "uses wrist motion when drawing or painting," "draws and paints with

relaxed grip on tools," and "scribbles or markings stay on the paper."

A test of reliability, Cronbach's Alpha, was conducted to measure internal consistency for the *VADS*. The reliability was high with a coefficient alpha of (.9868).

The Visual Art Rating Scale. The *VARs* consists of six areas relating to children's visual art activities measuring fluency, flexibility, originality, elaboration, space, and image. The scale is based on the developmental stages (basic scribbles, images, forms, and emergent writing), universal patterns, and symbols that children exhibit when they **draw, paint** (Arnheim, 1989; DiLeo, 1980; Jalongo, 1992; Jalongo & Stamp, 1997; Kellogg, 1970; Lowenfeld & Brittain, 1987; Matthews, 1984; Schirmacher, 1993, 2002), **construct** (Golomb, 1992; Hirsch, 1984) and **write** (Barclay, 1990; Dyson, 1986; Jalongo, 1992; Maehr, 1989).

A test of reliability, Cronbach's Alpha, was conducted to measure internal consistency of the *VARs*. Reliability was high with a coefficient alpha of (.9397).

Teachers completed the *VARs* by evaluating children's products and portfolios in the fall and spring of each school year. The *VARs* contained the following six items:

- (1) *Fluency*: Child products demonstrate repetition of a single mark, scribble, or image on numerous products over time as attempts are made to gain mastery before going on to the next mark, scribble, or image.
- (2) *Flexibility*: Child products demonstrate an increased variety of marks and images. The variety of marks or images can be seen on one product or on many products.
- (3) *Originality*: Child products demonstrate child's ability to combine scribbles, lines, and shapes to represent an image or symbol in a unique, imaginative, or unusual way. Child products display a fresh, independent, inventive approach through marks and images on paper.

(4) *Elaboration*: Marks are combined to form diagrams, shapes, combines, aggregates, mandalas, or representational images with complex details. Elaboration may range from scribbles with few details to a very detailed, complex image.

(5) *Space*: Child purposefully arranges marks or images on paper, using both positive and negative space to create balance. Products demonstrate the child's awareness of the relationship between the image and the size and shape of the paper used.

(6) *Image*: The child's structured designs or aggregates begin to represent objects. The child's images or symbols represent an idea, feeling, person, animal, or object.

Teacher reports on child progress. A section of the *Site Satisfaction Questionnaire* related to teacher perceptions of child progress. Teachers described how children participated in the expressive arts and provided examples of children's behaviors, attitudes, and interests while participating in expressive arts activities. Teachers also submitted informal reports during the year via E-mail and through contributions to the monthly newsletter.

Family reports on child progress. The *EAO Family Questionnaire* asked families to assess what expressive arts activities their children participated in at home and at school, whether families acquired some of their home art activity ideas from a teacher newsletter, and family perceptions of child gains while participating in expressive arts activities.

Teacher data sources. During and after participating in EAO training sessions, results of eight measures document changes in teacher behaviors as they implement the EA model into their classroom: (1) *The Site Needs Assessment*, (2) *EAO Site Staff Competencies*, (3) *The EAO Model Fidelity Profile*, (4) *The EAO Site Teacher Action Plan*, (5) *Follow-up Contact Log*, (6) *The Family Questionnaire*, (7) *The Site Satisfaction Questionnaire*, and (8) Reports submitted for publication to the *ArtExpress* newsletter. Measures are discussed in the following sections.

Site Needs Assessment. Participants used the *Site Needs Assessment* to explain their philosophy regarding the place of expressive arts in their early childhood program and to give examples of the types of expressive arts used in existing curricula. Participants responded to questions about time, space, and accessibility issues related to expressive arts activities and materials; explained how child-initiated activities were incorporated; and listed objectives for using expressive arts in their programs. Other items focused on the use of adaptive strategies and tools for children with physical disabilities, including access to computers with adaptive peripherals and interactive software. Results were used to customize or adapt training sessions to participant needs and provided base-line data regarding teacher knowledge and skills.

Site Staff Competencies. The EAO *Site Staff Competencies*, a self-assessment, used a Likert-scale format to assess knowledge and skills. The measure included six general knowledge items related to implementing the visual arts component of the EA model, such as *recognizing examples of children's art at different developmental stages* and *explaining the rationale for including art activities in programs for young children with disabilities*, as well as 37 specific skill items related to drawing, painting, 3-dimensional activities, and technology, such as *responding appropriately to child's painting projects* and *selecting appropriate software and peripherals for the child's developmental level and disability*.

Model Fidelity Profile. The EAO *Model Fidelity Profile*, completed by site staff, is a set of 58 items related to the implementation of the EAO model. Sub-categories of the *Model Fidelity Profile* include: facilities (7 items), materials (11 items), equipment (6 items), expressive art curriculum implementation (11 items), family involvement (6 items), data collection (11 items), and staff development (6 items).

Site Teacher Action Plan. Using the EAO *Site Teacher Action Plan*, participants detailed

individual goals for their classroom and students, and targeted expressive arts strategies to use to implement the EA model. After implementing their *Action Plans*, site teachers submitted written reports, including children's responses to the activities, photographs, videotapes, concrete materials, or samples created by children.

Follow-up Contact Log. The EAO Follow-up Contact Log is a monthly tally sheet used to record contact with EAO site staff. The Log records the nature of the contact (e.g., requests for resources, training, materials, and a variety of technical assistance) and whether the contact was in-person, or by phone, mail, fax, or E-mail.

Family Questionnaire. Items related to teachers in the *Family Questionnaire* included family perception of the types of expressive arts activities provided at school, the child's favorite school activity, and family participation in expressive arts activities with the child at school.

The Site Satisfaction Questionnaire. The EAO *Site Satisfaction Questionnaire* asked teachers to rate the quality of services received from EAO staff, using a Likert scale. Services included the initial training, written materials, technical support and assistance, assistance with data collecting, and software recommendations. Teachers were asked to list the new knowledge and skills they gained through their continued involvement with EAO, any follow-up training needs related to the *ArtExpress* curriculum, and examples of changes in children's skill, behavior, attitude, and interest while participating in expressive arts activities.

Teacher contributions to the "ArtExpress Newsletter." Teachers replicating the EA model were asked to contribute to the *ArtExpress* Newsletter photos and descriptions of innovative adaptations being implemented and successful expressive arts activity ideas used in the classroom. These were published in the following month's newsletter, which was sent to all participating sites.

Family data source. Families of children participating in the EA model were asked to

complete a *Family Questionnaire*. Items included *yes* and *no* questions to determine the degree that expressive arts materials were accessible for children at home and to assess types of expressive arts activities children engage in at home and the frequency of those activities. Respondents could check multiple items to indicate where they got ideas for expressive arts activities at home, what they perceived their children gained from participating in expressive arts activities, and their perception of the types of expressive arts activities provided at school. The *Questionnaire* provided blanks for short answers regarding the child's favorite school activity and family participation in expressive arts activities with the child at school.

Data Collection

Child data collection. The *Visual Art Developmental Scale (VADS)* and the *Visual Art Rating Scale (VARS)* data forms were administered in the fall and spring at each EAO site. In Year 1, site teachers observed and collected data on 134 children. In Year 2, data were collected on 182 children. In Year 3, data were collected on 144 children. Of the 460 children observed, 30 children were in the program more than one year (i.e., 25 attended the early childhood programs for 2 years, and five attended the early childhood programs for 3 years). The teachers' *Site Satisfaction Questionnaire*, administered once each year (spring) and the *EAO Family Questionnaire*, gathered twice a year (fall and spring), also contained data regarding children's behaviors.

Teacher data collection. Measures were administered to site teachers before, during, and after participating in EAO training sessions. The *Site Needs Assessment* was collected prior to training. Measures collected during EAO training sessions included *Site Staff Competencies* (pre-test), *Model Fidelity Profile* (pre-test), and *Site Teacher Action Plan*. Measures collected after implementation of the EA model had begun included the *Follow-up Contact Log*, the *Family Questionnaire*, the *Site Satisfaction Questionnaire*, *EAO Site Staff Competencies* (post-test, 12-18

months after training), the *Model Fidelity Profile* (post-test, 12-18 months after training), and reports submitted for publication to the *ArtExpress* newsletter.

Family data collection. The *EAO Family Questionnaire* was administered to families twice each year (fall and spring).

Data Analysis

Child data. The *Visual Art Developmental Scale (VADS)* and the *Visual Art Rating Scale (VARs)* were organized using *Microsoft Excel*. Scores were entered into yearly spreadsheets and sorted according to variables including time of assessment (i.e., fall and spring), disabling condition, site, age, and teacher. Data were then analyzed in SPSS 11.0 comparing the means using a paired-sample *t* test. Composite results are shown in Tables 3 on page 28 and Tables 4-9, pages 31-33.

Teacher data. Data from *Site Staff Competencies* were analyzed in SPSS 11.0 comparing the means using a paired-sample *t* test. Contents of the *Model Fidelity Profile*, *Site Teacher Action Plan*, and *Site Satisfaction Questionnaire* were analyzed, summarized and reported in percentages.

Family data. Responses to the *EAO Family Questionnaires* were organized by category and examined using *AppleWorks* database. Family data from fall and spring were entered by item for 3 years; percentages were reported for each item. Relevant items were subjected to content analysis to obtain patterns of child and teacher behaviors that parents were reporting in the questionnaires.

Results and Discussion

This report documents the Expressive Arts Outreach Project's effectiveness in meeting goals and objectives. Outcomes included increased child progress as a result of participating in EA activities and increased site staff and family competence in the expressive arts. Continuation and replication site teachers increased their (1) ability to make adaptations and to analyze children's artwork, (2) responsiveness to children and their art, (3) modeling of art techniques, and (4) ability

to integrate art experiences across the curriculum. Teachers arranged their classroom environments for the arts and served as resources and advocates for the Expressive Arts model. Phase 2 EAO continuation and replication site data demonstrated benefits to children, families, and staff similar to the EA model outcomes produced during the model development (1992-1995), field-testing (1995-1997), and outreach Phase 1 (1997-2000).

Findings Related to Children

All children on whom data were collected showed growth over time while they were involved in the Expressive Arts Project according to results on the *VADS* and *VARS*. Findings demonstrated steady increases in children's cognition, communication, social, gross motor, and fine motor skills, as well as in children's drawing fluency, flexibility, originality, elaboration, use of space, and recognizable images. Table 3 on page 28 documents fall, spring, and difference scores that also indicate positive growth over the 3 years. Figure 5 on page 29 lists child outcomes and the measures, including family and teacher observations and reports, that demonstrated outcomes. Both qualitative and quantitative measures were used to triangulate outcome data. Although triangulation protocol is to list outcomes only if they are evidenced in at least *three* sources, only *one* of the outcomes listed in Figure 5 references *three* sources. However, *five* outcomes were identified in *four* sources, and *one* was identified in *five* sources, providing strong support for EA's effect on the outcomes listed in Figure 5.

Composite *VADS* and *VARS* scores across 3 years (2000-2003). Composite *VADS* and *VARS* scores from 460 Phase 2 children over the 3-years are shown in Table 3, page 28, which contains comparisons of scores of children with disabilities ($n = 192$) and those at-risk ($n = 268$). While the children at risk had higher initial scores on the measures than their counterparts with identified disabilities, both groups of children showed similar patterns of improvement, with each

Table 3. Comparison of Composite (Years 1, 2, and 3) Scores for Children with Disabilities and Children At-risk from the *Visual Art Developmental Scale* and the *Visual Art Rating Scale**

		Children with Disabilities <i>n</i> = 192 (42%)			Children At-risk <i>n</i> = 268 (58%)			
		Fall	Spring	Difference	Fall	Spring	Difference	
Visual Arts Developmental Scale	Cognitive Skills							
	Cognition 1	3.69	4.25	+.56	4.02	4.89	+.87	
	Cognition 2	3.98	4.50	+.52	4.17	4.97	+.80	
	Cognition 3	3.72	4.36	+.65	4.16	4.98	+.82	
	Cognition 4	3.33	4.11	+.78	3.81	4.82	+1.01	
	Cognition 5	3.51	4.38	+.87	3.94	4.94	+.99	
	Cognition 6	3.04	4.01	+.97	3.73	4.90	+1.17	
	Cognition 7	2.95	3.96	+1.01	3.44	4.76	+1.33	
	Cognition 8	3.11	4.07	+.96	3.64	4.90	+1.25	
	Cognition 9	3.23	4.04	+.80	3.88	4.91	+1.03	
	Cognition 10	2.95	4.03	+1.08	3.69	4.87	+1.17	
	Cognition 11	2.93	3.91	+.98	3.47	4.76	+1.30	
	Communication Skills							
	Communication 1	4.29	4.84	+.55	4.59	5.24	+.65	
	Communication 2	3.51	4.22	+.71	4.10	4.96	+.86	
	Communication 3	4.10	4.78	+.68	4.55	5.31	+.75	
	Communication 4	4.28	4.89	+.61	4.59	5.28	+.69	
	Communication 5	3.20	4.17	+.97	3.66	4.88	+1.23	
	Communication 6	3.19	4.14	+.94	4.03	4.99	+.96	
	Communication 7	2.81	3.79	+.97	3.51	4.92	+1.41	
	Social Skills							
	Social 1	3.40	4.02	+.61	3.96	4.92	+.96	
	Social 2	4.21	4.79	+.58	4.59	5.10	+.51	
	Social 3	4.00	4.67	+.67	4.50	5.11	+.61	
	Social 4	4.02	4.67	+.66	4.54	5.17	+.63	
	Social 5	4.15	4.90	+.75	4.84	5.26	+.43	
	Social 6	4.15	4.75	+.60	4.67	5.17	+.50	
	Social 7	3.64	4.44	+.81	4.24	5.05	+.82	
	Social 8	3.99	4.77	+.78	4.66	5.14	+.48	
	Social 9	4.42	5.08	+.67	4.88	5.35	+4.47	
	Social 10	3.85	4.69	+.83	4.51	5.10	+5.59	
	Gross Motor Skills							
	Gross Motor 1	4.19	4.81	+.61	4.68	5.44	+76	
Gross Motor 2	3.93	4.69	+76	4.70	5.41	+72		
Fine Motor Skills								
Fine Motor 1	3.97	4.64	+66	4.69	5.47	+78		
Fine Motor 2	4.03	4.66	+63	4.67	5.44	+77		
Fine Motor 3	3.91	4.56	+65	4.68	5.38	+70		
Fine Motor 4	4.14	4.88	+73	4.87	5.48	+61		
		Fall	Spring	Difference	Fall	Spring	Difference	
Visual Arts Rating Scale		Fluency	2.17	2.98	+81	2.50	3.37	+87
		Flexibility	2.36	3.11	+76	2.64	3.47	+82
		Originality	2.36	3.24	+88	2.86	3.71	+85
		Elaboration	2.33	3.16	+83	2.62	3.56	+94
		Space	2.82	3.56	+73	3.32	3.94	+63
		Image	3.30	4.42	+1.13	3.82	5.16	+1.34

*Scores in **bold face** type represent the one or two high scores in each category for children with disabilities and children at risk.

group of children showing significant improvement in all areas of the *VADS*². Some children with moderate to severe disabilities often do not show positive growth over time. Nevertheless, while scores for children at-risk were generally higher than those of children with disabilities (for example, in areas of social skills) across both fall and spring testing, it is important to note that in some areas, children with disabilities showed greater difference scores, in a positive direction, between fall and spring, strongly suggesting the positive effects of the EA curriculum.

Figure 5. Child Outcomes and Data Sources

Child Outcomes	Data Sources					
	<i>Visual Art Developmental Scale</i>	<i>Visual Art Rating Scale</i>	Individual Child Portfolios	Teacher Observational Reports	<i>Site Satisfaction Questionnaire</i>	<i>Family Questionnaire</i>
	•		•	•	•	•
Investigated the elements of expressive arts.	•	•	•	•		
Increased flexibility, fluency, and level of expressiveness in art products.	•	•	•		•	
Engaged in positive social interactions while participating in art activities.	•			•	•	
Increased number of images in their art vocabulary.	•	•	•			•
Developed detail and complexity of art products.	•	•	•		•	
Increased use of art images/activities as themes for communication.	•	•	•			•
Increased emergent literacy behaviors.	•			•	•	•

The scores indicate that over the 3 years, growth and progress were shown by young children at all the sites in all six developmental areas measured by the *VADS* and *VARS*, regardless of child age, individual teacher differences, differences in the children’s disabilities, and differences in classroom type (i.e., continuation site or replication site [either Outreach Phase 1 or Phase 2]) and level of involvement. The six developmental areas include elements of cognition, communication,

² All differences for the *Visual Art Developmental Scale* were statistically significant at $p < .001$.

social skills, gross motor skills, fine motor skills, and aspects of children's images.

In the VAD's area of cognition, item 7 (*Develops mental images and represents them through visual art*) showed the most growth for children at-risk (+1.33) while item 10 (*Develops recognizable symbols*) showed the most growth for children with disabilities (+1.08). For both groups, communication item 7 (*Writes using mock letters, real letters, or both*) demonstrated the largest growth (+.97 for children with disabilities and +1.41 for children at-risk). The most gain (+.96) seen in the area of social skills for children at-risk was item 1 (*Demonstrates initiative in expressive arts activities*), while children with disabilities showed the most gain (+.83) in item 10 (*Seeks adult help when appropriate to resolve conflicts*). However, the difference scores for children with disabilities were higher on 8 of the 10 social skills items, indicating the EA's positive effect on social skills. Both gross motor and fine motor scores showed gains across the two groups, with the largest gain seen in gross motor item 1 (*Uses large muscle, whole arm movements in art activities*) at +.76 for children at-risk. The difference in item 2 (*Crosses midline when drawing, painting, or constructing*) is higher, at +.76, for children with disabilities, because this is a skill that children at risk and those without physical disabilities already have. However, the difference indicates positive effects for children with disabilities. Children at-risk showed the highest gain (+.78) on fine motor item 1 (*Manipulates and grips visual art materials and tools appropriately*), while the highest gain for children with disabilities (+.73) was item 4 (*Scribbles or markings stay on the paper*). Again, the data indicates that those with disabilities are quite likely acquiring skills that those at risk already have mastered.

Young children at EAO sites demonstrated higher order thinking skills through increased fluency, flexibility, originality, elaboration, space, and image scores in the VARS. Highest gains for each group appeared in the *communicates through images or symbols* category, at +1.13 for

children with disabilities and +1.34 for children at risk.

Tables 4 - 9 on pages 31-33 group children to depict all 3 years' *VADS* and *VARS* results. Children's scores demonstrate growth over time regardless of the number of sites involved, the number of children involved (134 in Year 1, 182 in Year 2, and 144 in Year 3), whether children are those with disabilities or at risk, and the fact that teachers at continuation sites received more years of technical support and follow-up after training than teachers who participated for the first time during EAO Phase 2.

Table 4. Years 1-3 *VADS* Cognition Scores

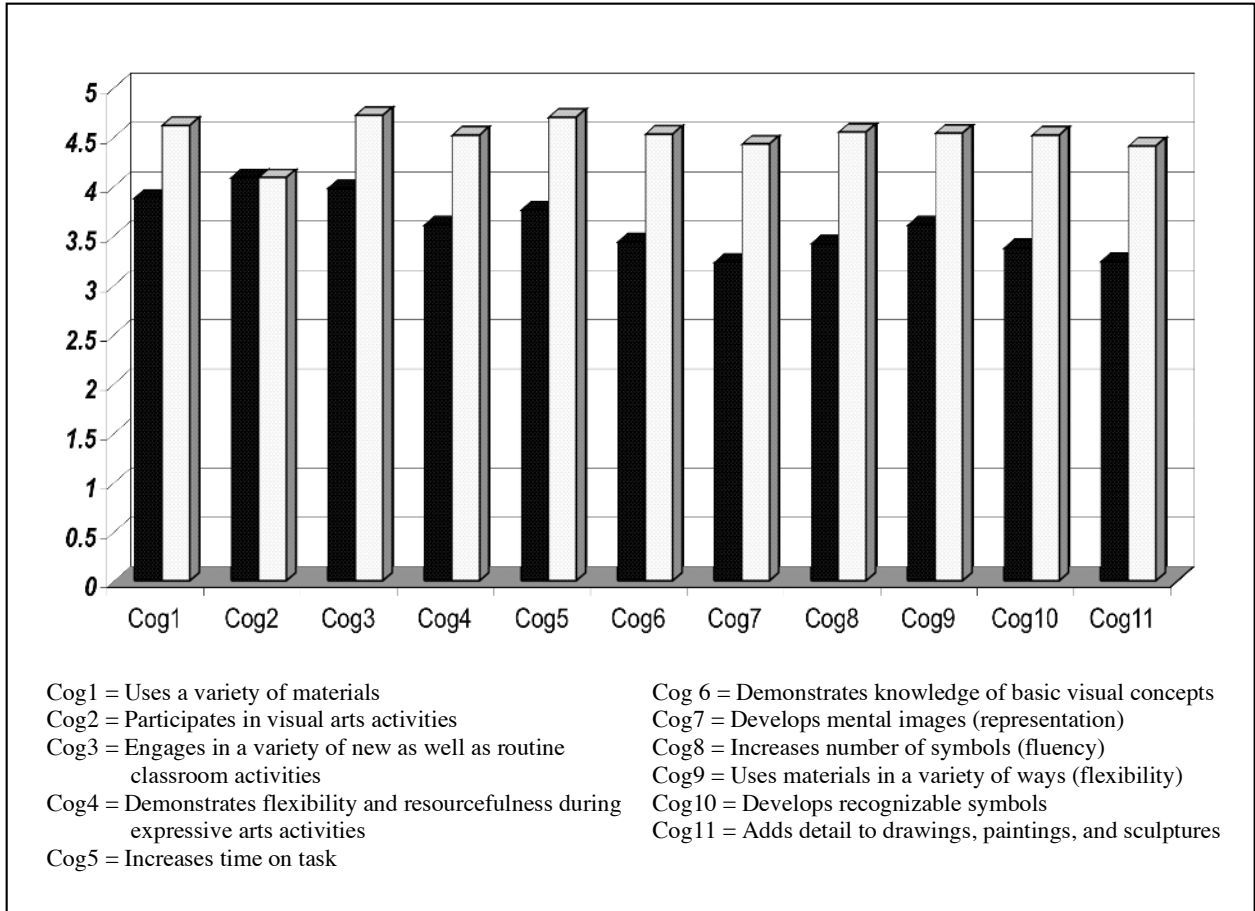


Table 5. Years 1-3 VADS Communication Scores

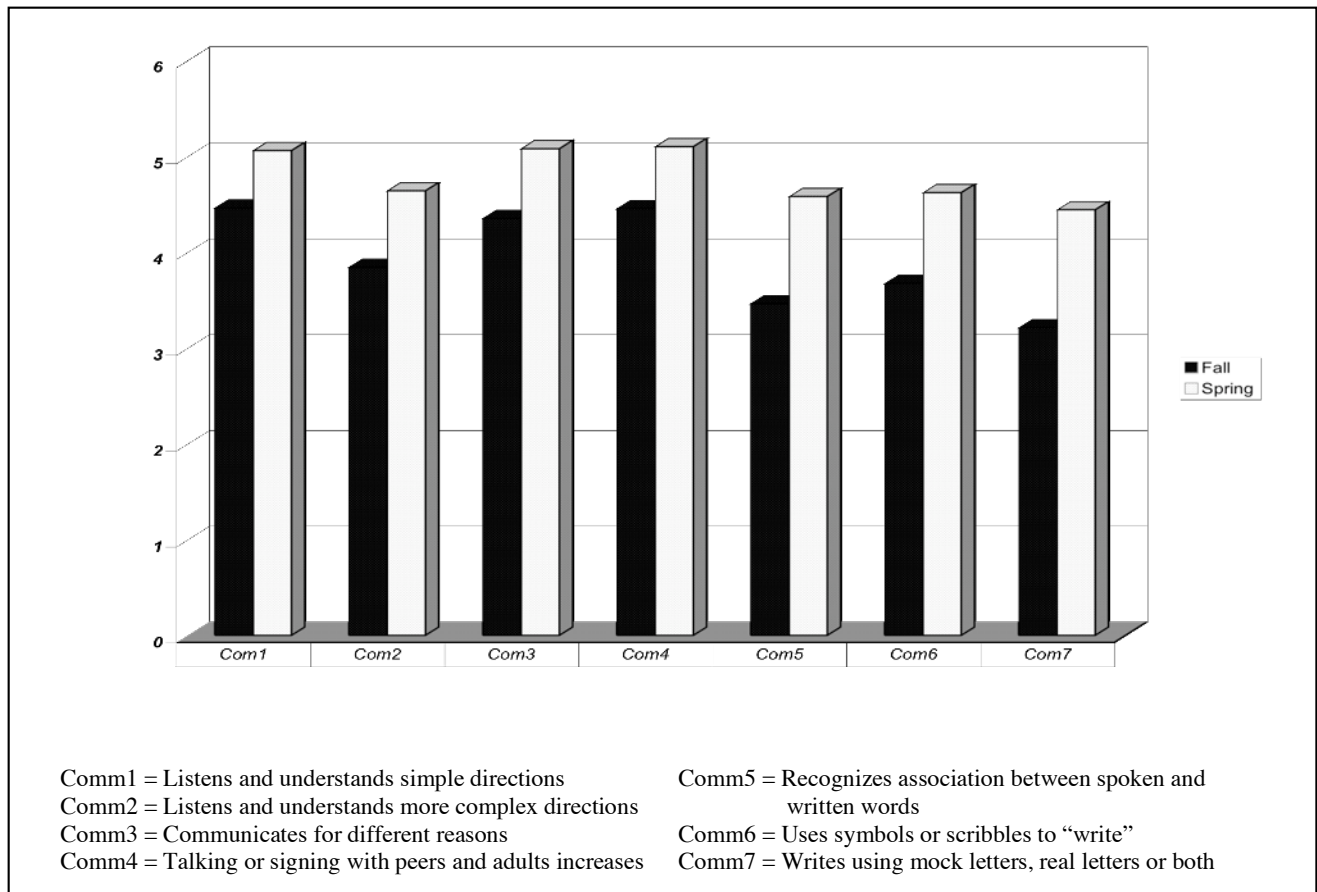


Table 6. Years 1-3 VADS Fine Motor Scores

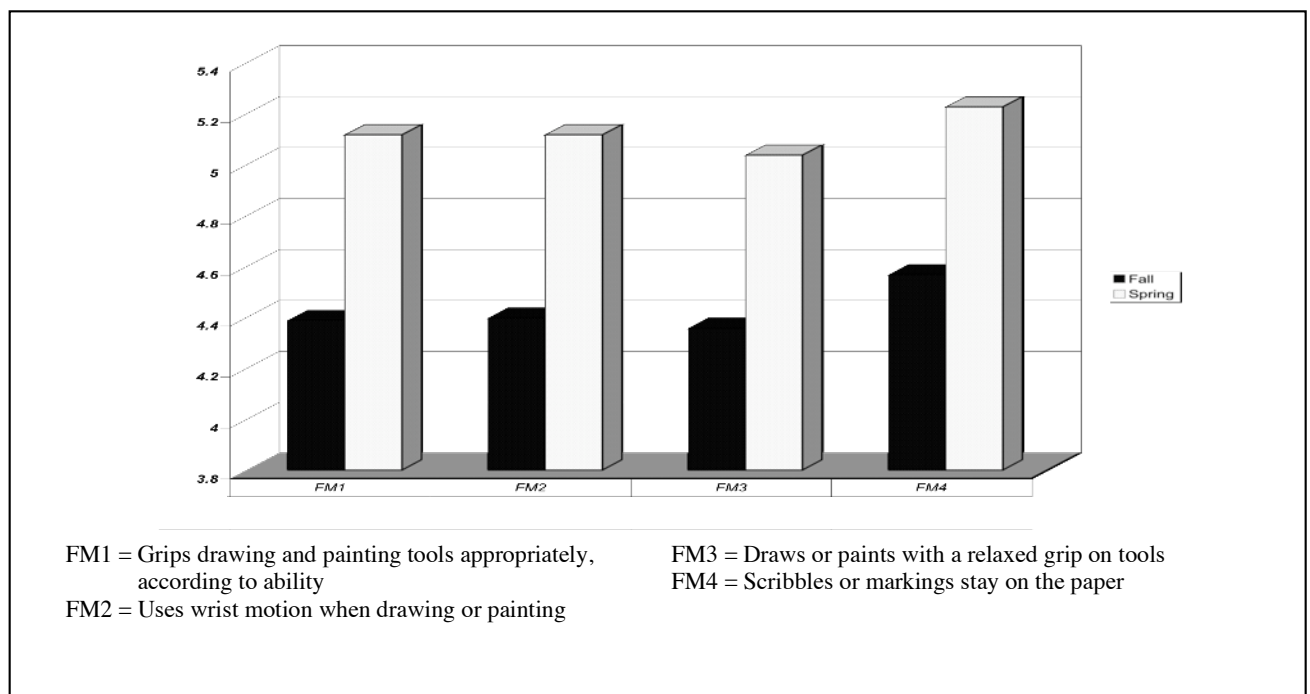


Table 7. Years 1-3 VADS Social Scores

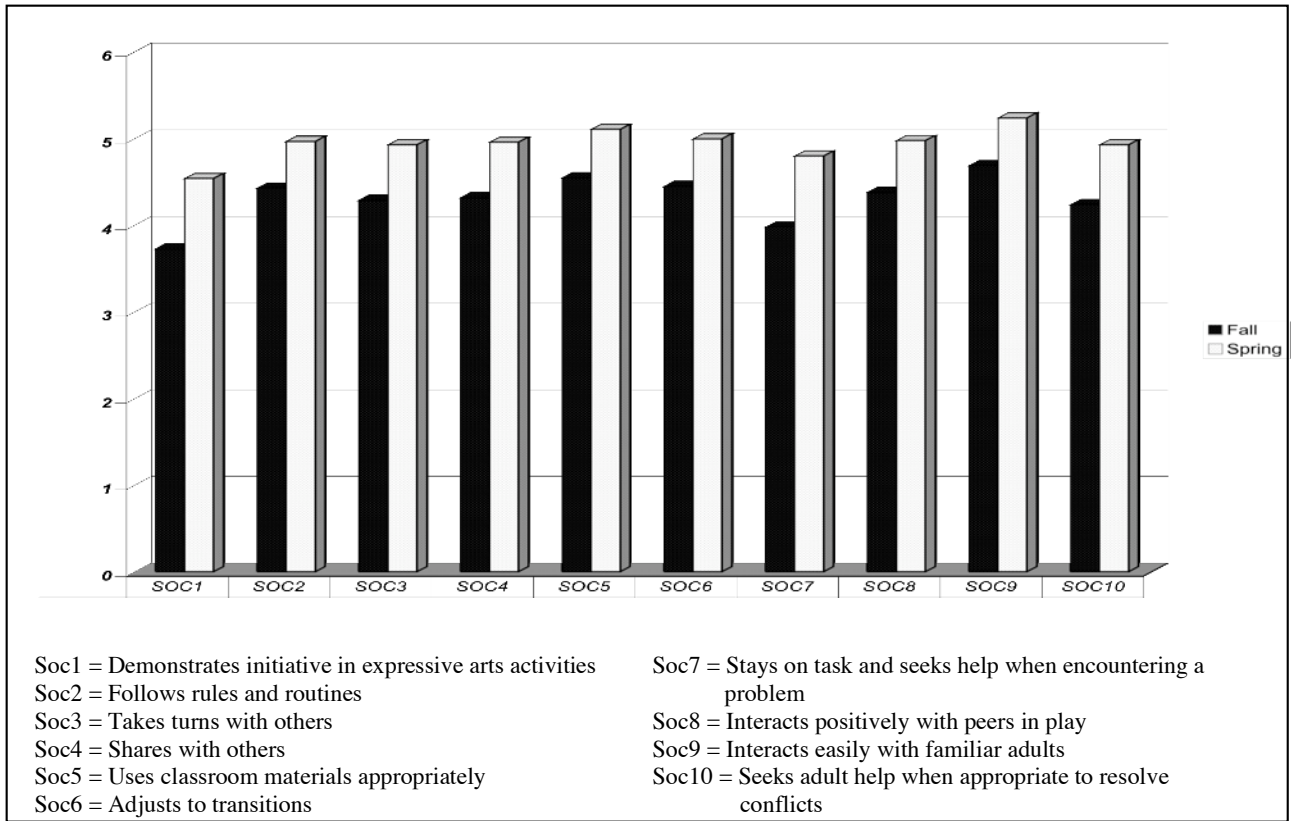


Table 8. Years 1-3 VADS Gross Motor Scores

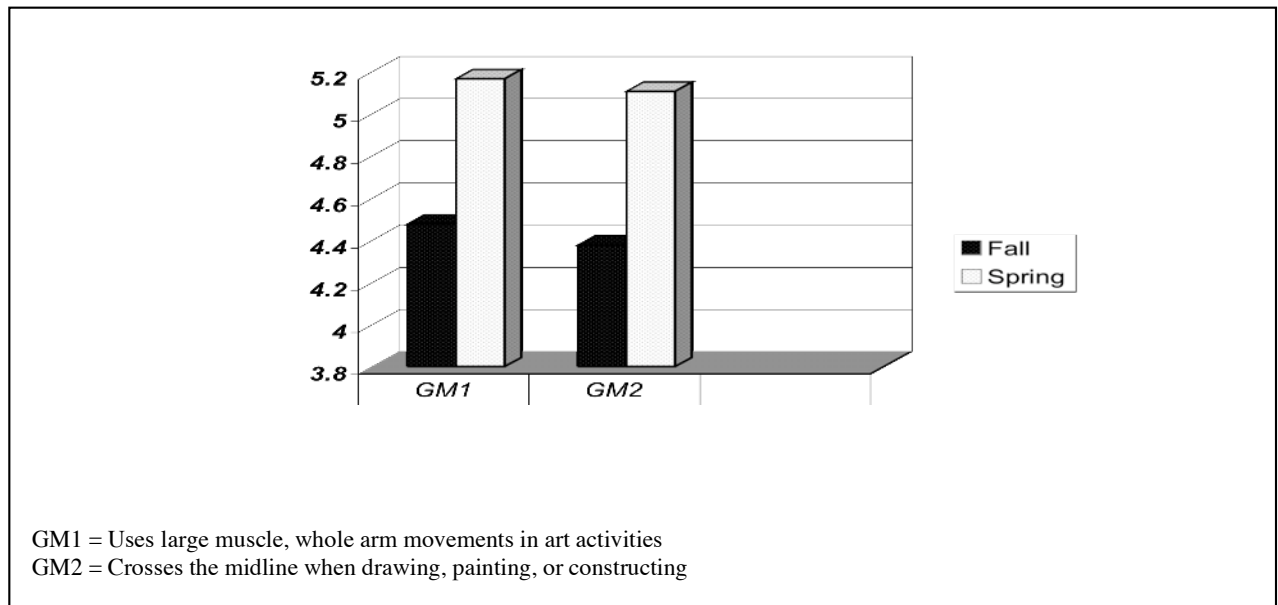
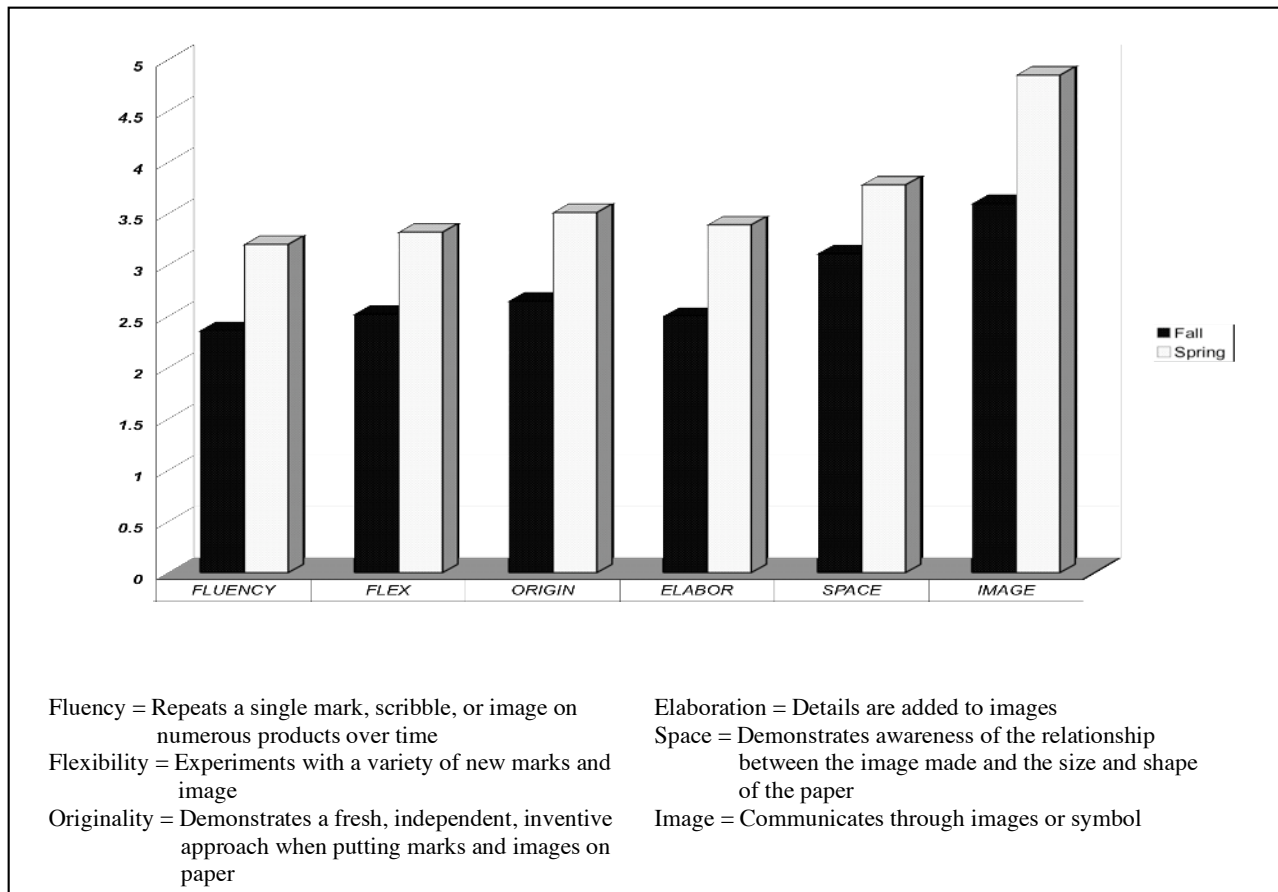


Table 9. Years 1-3 VARS Scores

Teachers report benefits for children. Results from the VADS and VARS were substantiated by qualitative data obtained from teachers' observational reports regarding child growth. When teachers were asked, as part of the *Site Satisfaction Questionnaire*, to give examples of change in children's skills, behaviors, attitudes, and interests while participating in expressive arts activities, their responses all 3 years indicated decreased *tactile defensiveness* and increased *communication, self-confidence, attention span, and participation*.

Samples of reports regarding children who were tactilely defensive included:

- *Children are always given opportunities to participate in each activity (or even to watch*

others at first) at their comfort level. Even those who begin the year tactilely defensive learn to overcome;

- *I see greater interest in tactile materials. Children are less afraid to try new things;*
- *I've observed an overall decrease in tactile defensiveness. Children are showing more of a willingness to join in art activities and new experiences; and*
- *Tactile defenses lowered. Children's hesitancy was soon replaced by enthusiasm.*

Samples of reports related to increases in children's skills included:

- *Children's skills in all developmental areas are enhanced by participating in expressive arts activities;*
- *Children develop observational skills, the ability to increase the amount of detail, more language is expressed when telling a story about their art; and*
- *Children show more use of problem-solving and use peers as resources more often.*

Samples of reports related to changes in child behaviors included:

- *Peer interaction and cooperation increases;*
- *More expressive language is used;*
- *Children view themselves as capable artists;*
- *Children demonstrate ability to share, cooperate, and take turns;*
- *Children show willingness to take the first step to experience new things; and*
- *Active participation in expressive arts results in an engaged learner.*

Findings related to changes in child attitudes included:

- *Children have become more self-directed;*
- *Children are calm, focused, happy, self-confident, and able to feel good about their ideas;*
- *Children view themselves as creative and capable;*

- *They have more of a "can do" attitude; and*
- *Children ask to do certain favorite art projects over again.*

A report related to changes in child interest included:

- *One little guy would only build with blocks at the beginning of the year. Markers and other drawing materials did not interest him. By the end of the year he was drawing and painting, as well as creating with building blocks.*

Sample reports about gains resulting from children's engagement in expressive arts activities:

- *Aubree has been absent 50% this year. So she is not especially comfortable or outgoing with peers except in visual arts activities. Here she becomes more of a leader.*
- *Visual arts activities are very positive for Tyson, who has difficulty using kind words and voice with peers in most other activities.*

Family perceptions of child gains. The *Family Questionnaire* asked, *What do you think your child gains from participating in expressive arts activities?* Respondents ($N = 589$) were given a list from which to choose and an opportunity to add benefits not listed. Their most frequent responses were related to visual arts: *experience with drawing/writing tools* (84%, $n = 494$) and *development of eye-hand coordination* (78%, $n = 460$). These were followed by responses related to communication: *ways to express knowledge and feelings* (69%, $n = 409$), *ways to communicate with others* (64%, $n = 379$), and *experience with sounds and words* (64%, $n = 376$). Other gains included *development of visual/symbolic vocabulary* (59%, $n = 347$), *exposure to a variety of music* (57%, $n = 334$), and *other* (12%, $n = 68$). Respondents who reported *other* wrote about gains that included: *sense of pride, self trust, self confidence, self esteem, creativity, developing imagination, attention to detail, and increased enjoyment in expressive arts.*

Art and emergent literacy. Child data demonstrated EA impact on children's emerging

literacy behaviors. The *VADS* contains six questions related to literacy behaviors: Cognition items 7, 8, and 10 and Communication items 5, 6, and 7. Table 10 below, Table 3 on page 28, and Tables 4 and 5 on pages 31-32 demonstrate growth in all six areas related to emergent literacy.

Because the EA model emphasizes the link between drawing and writing, teachers provided materials and opportunities for children to draw and write. Children drew in journals and made thank you notes, invitations, and get well cards. Mock writing or real letters emerged in children's drawings. Writing materials were placed throughout the classroom centers (e.g., note pads in the kitchen area to make shopping lists, in the block area to draw plans for a house children were building, in the play restaurant for making menus). One teacher reported, "*Most of the children learn their letters through their writing and drawing. They scribble but as they improve on writing their name they want to write other words more accurately also.*" Teachers listed the following purposes children have for writing and drawing in their classrooms: *to communicate information; to communicate knowledge, an idea, a thought, or an interest; to make scientific prediction journals; to tell or retell a story; to document; to recall an event or experience; to contribute to a class book; and to show awareness of the world around them.*

Table 10. Composite (Years 1, 2, and 3) Scores from 460 Children Indicating Growth in Items Related to Children's Emerging Literacy Skills

<i>Visual Arts Developmental Scale Items Related to Literacy</i>	Fall	Spring	Difference
Develops mental images and represents them through visual art.	3.23	4.43	+1.20
Increases number of symbols.	3.42	4.55	+1.13
Develops recognizable symbols.	3.38	4.52	+1.14
Recognizes association between spoken and written words.	3.47	4.59	+1.12
Uses scribbles or symbols to "write."	3.68	4.63	+ .95
Writes using mock letters, real letters, or both.	3.22	4.45	+1.23

Families also recognized connections between children's art experiences and emergent literacy when they responded to the question, *What do you think your child gains from participating in expressive arts activities?* Fifty nine percent (59%) of the respondents ($n = 347$) marked

Development of visual/symbolic vocabulary; 63% ($n = 376$) marked *Experience with sounds and words*; 64% ($n = 379$) marked *Ways to communicate with others*; 69% ($n = 409$) marked *Ways to express knowledge and feelings*; and 84% ($n = 494$) marked *Experience with drawing/writing tools*. Respondents could check multiple items in this category.

Findings Related to Teachers

Child data were reported from all 23 sites participating in EAO Phase 2. However, teacher data summaries related to *Site Staff Competencies*, *Model Fidelity Profile*, and *Site Teacher Action Plan* reflect only the 14 EAO Phase 2 Replicating sites (See Table 1, page 12). Six of the Phase 2 sites presented data collection challenges. Two sites (Champaign and Savoy) participated for only a year (Year 2), having only a few months between training and post-testing to become comfortable with implementation. The four new Head Start sites experienced high staff turnover and reassignment. Pre-test data was gathered from all six sites before or immediately after training, but not all of the teachers responded to requests for the post-test data.

Results from the eight teacher measures listed in Figure 6 documented gains in teacher knowledge and skills as well as changes in teacher behaviors as they implemented the EA model from October 2000 to September 2003. New knowledge and skills teachers gained included: new activity ideas, adaptive strategies including technology, developmental stages of children's artwork, portfolio assessment, and skills in data collection. Figure 6 summarizes teacher outcomes. While one outcome was identified across four sources (*teachers involved families in EA activities*), the remainder of the findings were noted across five or more sources although triangulation protocol recommends the strength of a finding if it occurs in at least three sources.

Site Staff Competencies. The EAO *Site Staff Competencies* assessed knowledge and skills existing prior to EAO training and the new knowledge and skills teachers acquired after

implementing the EA model. Base-line knowledge and skills in implementing the EA model varied widely. All classrooms had basic expressive arts materials (e.g. crayons, markers, scissors, glue) available to children. However, videotape, site visits, and informal interviews revealed six teachers used these materials for adult directed, follow-the-direction activities instead of expressive art. After EAO training these teachers adopted a developmentally appropriate framework for implementing the expressive arts, learned to integrate the expressive arts throughout their curriculum, and gained information about adaptive materials, peripherals and software.

Figure 6. Teacher Outcomes and Data Sources

Teacher Behaviors	Data Sources							
	<i>Site Needs Assessment</i>	<i>Site Staff Competencies</i>	<i>Model Fidelity Profile</i>	<i>Site Staff Action Plan</i>	<i>Follow-up Contact Log</i>	<i>Family Questionnaire</i>	<i>Site Satisfaction Questionnaire</i>	<i>Reports for ArtExpress Newsletter articles and activity ideas</i>
Teachers implemented expressive arts activities.	•	•	•	•	•	•	•	•
Teachers incorporated EA ideas into curriculum.			•	•	•	•	•	•
Teachers integrated art activities into other curricular domains.		•	•	•	•	•	•	•
Teachers made adaptations in classroom structure to facilitate EA activities.	•	•	•	•	•	•		•
Teachers linked emergent literacy with EA activities.	•		•		•	•	•	
Teachers included EA activities for children with physical disabilities.	•	•	•	•	•	•		•
Teachers included adaptations for specific children.		•	•	•	•	•		•
Teachers included computer, specific software, or peripherals to meet any child's developmental goals.		•	•	•	•	•		•
Teachers assessed children's artwork and growth using EA assessment measures.		•	•	•	•		•	
Teachers provided portfolios/documentation of children in classroom.		•	•	•	•	•		•
Teachers involved families in EA activities.			•	•		•	•	

Pre- and post- EAO *Site Staff Competencies* completed by replication site staff trained from 2000 to 2003 demonstrated gains in teacher knowledge and skills. Replication site staff showed gains in six general knowledge areas with the most gains shown in Item 5 (*recognizing examples of children's art at different developmental stages*), which increased from 3.3 to 4.3; Item 3 (*explaining the rationale for including art activities in programs for young children with disabilities*), which increased from 3.4 to 4.3; and Item 4 (*determining and implementing developmentally appropriate art activities*), which increased from 3.7 to 4.5.

Replication site staff also showed gains in the 37 specific skill areas. The most gains were shown in Item 33 (*describing the management of a visual arts program in a center based program*), which increased from 3.0 to 4.0; Item 32 (*listing examples of the benefits of the visual arts in early intervention programs*), which increased from 3.1 to 4.0; Item 37 (*selecting appropriate software and peripherals for the child's developmental level and disability*), which increased from 2.8 to 3.6; and Item 19 (*responding appropriately to child's painting projects*), which increased from 3.3 to 4.1. Given teachers' resistance to change and the lack of expressive arts training in undergraduate and graduate teacher education programs, it is reasonable to assume that replication site teachers' knowledge and skills related to the expressive arts would not have changed without EAO training and follow-up.

Model Fidelity Profile. Teachers³ trained during the Phase 2 outreach period completed their *Model Fidelity Profiles* after initial training and updated them 12 to 18 months later. Results from the 58 tasks of the *Model Fidelity Profile* showed that 7 of the 12 teachers (58%) had completed all 58 tasks and EA model implementation was on-going in those seven classrooms. Results also indicated four teachers (33%) were considering implementing a new EAO task after training, and two site teachers had begun a new task that had not yet been completed. Nine teachers

³ Numbers do not include Champaign and Savoy teachers who were involved only one school year.

(76%) had adequate space for expressive art activities, storage, and accessibility; seven (58%) had the appropriate art materials; six (50%) created an appropriate environment (e.g. child-sized chairs, easels in the art center); six completely implemented the *ArtExpress Curriculum*; another five (42%) were beginning to implement the *ArtExpress Curriculum*; and six (50%) involved family in art activities.

Site Teacher Action Plan. Nineteen teachers and support staff from 10 sites proposed action plans for implementing the EA model. Seventeen (89%) completed all aspects of those action plans. Using *Site Teacher Action Plans*, teachers identified goals for their classrooms and students and targeted specific expressive arts strategies they would apply. Action plans contained goals corresponding to the EA training content. Some teachers selected more than one goal. The 19 action plans targeted 32 goals.

Fourteen teachers (74%) planned to expand and extend expressive arts activities and materials in their classroom and did so. Examples included: *connecting art more fully to each domain in projects, themes, and units; changing art media regularly; exposing children to as many art experiences as possible; providing more opportunities for drawing and free exploration of art materials; encouraging children to draw after each field trip; and making the art area larger by providing a bigger table.*

Integrating technology into the curriculum was the focus of action plans for eight (42%) of the teachers who submitted and completed action plans. Three of the eight (38%) integrated software to expand and support EA activities and allow children to make art at the computer. Two (25%) linked software to classroom themes throughout the year. Two others (25%) wanted to use the computer more often. To assist them in completing their action plans related to technology, three of these eight teachers (38%) requested and received additional training from EAO staff in the

use of *HyperStudio*, *KidDesk*, scanners and digital cameras for documenting child artwork.

Five of the 19 teachers (26%) chose to focus on emergent literacy. Their goals included the following: *use a sign-up sheet at the computer center; provide props and books to expand of enrich software; create books; use pictures from software to make games, activities, and books; and implement strategies to encourage children to participate at the art/writing center.* Another five chose to implement adaptive strategies and use adaptive materials.

Two teachers whose action plans related to technology integration and the expressive arts were unable to complete their plans because of problems with the technology. One teacher had computer and printer malfunctions, and the school had no funds to fix or replace the equipment. The other teacher could not complete her action plan because the school's technology regulations did not allow her to install her own software. Both teachers reported that they successfully implemented other aspects of their EA Action Plan that involved providing more time for art activities and integrating art activity with other curriculum activities.

After implementing their activity plans, teachers reported outcomes to EAO staff. Outcomes were reported in a variety of ways. Twelve teachers (63%) submitted photographs of their classroom environment; thirteen (68%) submitted concrete samples and photographs of children's artwork; three (16%) sent a videotape of children engaging in an expressive art activity, and one sent her activity report with photo attachments via E-mail. EA staff evaluated the outcome reports and artifacts the teachers submitted and found that all teachers who completed their action plans had submitted evidence demonstrating that they had achieved their goals. Fifteen of the teachers (88%) reported taking advantage of various resources to facilitate achievement of their actions plans. These resources included the Internet, local technology personnel, the school's resource library, and other professionals. With permission from the teachers,

EA staff incorporated curriculum activity ideas explained in the action plan reports into the monthly Art Express newsletters as a vehicle to facilitate teacher networking.

Site Satisfaction Questionnaire. The *Site Satisfaction Questionnaire* collected both quantitative and qualitative data. Over the 3 years, 33 of the 42 teachers (79%) responded to the *Site Satisfaction Questionnaire* (14 in Year 1, 9 in Year 2, and 10 in Year 3). Choosing a response from 1 (poor) to 5 (excellent), each year respondents gave high ratings to the EAO staff for (1) the initial training experience (averages of 4.3, 4.25, and 4.9); (2) the written training materials (averages of 4.09, 4.11, and 4.8); (3) technical assistance (averages of 4.27, 4.13, and 4.5); and assistance with data collection and art portfolio evaluations (averages of 4.42, 4.0, and 4.56).

Over the 3-year Phase 2 period 29 (88%) of the respondents reported feeling well prepared to implement the EA model and integrate expressive arts activities into their program following EA training. The *Questionnaire* asked respondents to identify areas in which they would like follow-up training. Twelve (36%) requested follow-up training in the area of integrating the expressive arts and technology. EAO staff responded by conducting six follow-up training events.

A content analysis of qualitative data indicated that teachers reported gains in knowledge and skills resulting from involvement in EAO. Listed among those gains were new activity ideas, adaptive strategies, use of technology, knowledge of developmental stages of children's artwork, portfolio assessment, and skills in data collecting. These findings are congruent with findings from the previous expressive arts projects reported by Hutinger (1998) and Hutinger and colleagues (2002).

One teacher reported being better at tracking children's progress. She wrote, "*This program makes you look at the progress from the beginning of the year to the end. I'm better at keeping track with this form [Visual Art Developmental Scale].*" Another reported that she gained new

knowledge about the developmental stages of children's art. Another said she had *"more confidence to try ideas to immerse all children in the arts daily and the information to back up the importance of doing so,"* while another stated she gained *"greater knowledge of developmental phases of visual communication."* One teacher said, *"I look at art in a different, more open way now. I see the opportunity for using 'still life' painting and introducing children to different artists and their styles."* Another reported she gained additional ideas for aligning the arts with curriculum standards.

Other reports from teachers included:

- *EAO training has helped me connect with district efforts in brain-based teaching and differentiations in the classroom...and gave me the ability to change art projects from 'cookie cutter' to 'explore, develop, express, and reflect'.*
- *Thank you for your patience and support in bringing the Expressive Arts model to our school. It has helped our staff to see children's works of art in a different light and caused us to reevaluate our presentation of 'art projects.' For some of us it has been, and continues to be, a gradual change, but in looking at our displays and collections of children's work, an obvious change can be noted.*

Family Questionnaire. Data about teachers were also gathered from the *Family Questionnaire*, which was sent in the fall and spring each year to families of children in each EA classroom. Over the 3 years, 589 families responded to the *Questionnaire*. One item on the *Questionnaire* asked families if they thought the teacher was providing their child classroom activities related to the expressive arts. Respondents were positive, indicating their children were provided with a variety of expressive art activities including painting, 79% ($n = 465$), drawing 78% ($n = 463$), sculpting 80% ($n = 473$), and the computer 73% ($n = 431$) at school. Several commented that they were satisfied with the activities their children engaged in at school. When asked, *Are there any activities you would like to see done more*

often in your child's classroom? 80% ($n = 469$) responded *no*. Twenty percent ($n = 120$) of the families expressed a desire to see different activities in the classroom. Some of these responses included: *more animal life, writing, computer activities, vocabulary and speech, alphabet, reading, performing arts/role playing, exploring other cultures, sculpting, cooking, problem solving, more music activities, and writing their name*. One hundred thirty four families (23%) participated in expressive art activities at school. When families were asked, *Where do you get your ideas for expressive art activities at home?*, 30% responded they received ideas from *teacher's newsletters*. In general, parents reported satisfaction with the variety of expressive art activities available to their children during and after school.

Teacher contributions to the *ArtExpress* Newsletter. From October 2000 to September 2003 the Expressive Arts Outreach project published a monthly newsletter during the school year (September through May). Each issue contained an article written by project staff, a list of upcoming events, reminders about data due dates, and EAO site classroom activities.

Teachers replicating the model were invited to report innovative adaptations and share successful activity ideas with other teachers. Photo documentation was encouraged. Twenty-seven (65%) of the 42 participating teachers submitted at least one activity to the newsletter; however, the majority of activity reports came from Avon and Macomb site teachers with 21 and 24 activities, respectively. Reports included expressive arts activity ideas, low-tech and high-tech adaptation ideas for children with specific needs, suggestions for linking the expressive arts with emergent literacy, and ideas for integrating the arts into on-going classroom projects.

While the *Site Satisfaction Questionnaire* had no item that specifically asked about the newsletter, 57% ($n = 8$) of the 14 new replication teachers took the opportunity to tell EAO staff that they gained new ways to integrate the expressive arts into their curriculum as a result of the

ArtExpress newsletter. Some comments included: "different newsletter ideas sparked new ideas for our classroom; articles in the newsletter helped me create specific themes of study; new materials on the market; great ideas from the newsletter; and the newsletter was very helpful and useful to me."

The newsletter was an unexpectedly effective strategy for sharing ideas between project staff and teachers, as well as among teachers themselves, and encouraging continued teacher involvement in the expressive arts.

Follow-up Contact Log. The monthly request for information and consultation tally sheet showed 2,860 contacts from October 2000 to September 2004. Of these, 54% ($n = 1,552$) were contacts with EAO continuation site staff, and 46% ($n = 1,308$) were contacts with EAO replication site staff. The majority of contacts were made via mail (78%, $n = 2,231$) and phone (15%, $n = 429$). Other contacts included 143 face-to-face (5%), 54 via E-mail (1.9%), and 3 via fax (.01%). Site staff requests related to appropriate art adaptations and software; assistance with data collection and children's portfolio evaluations; submissions of child, family, and site data or informal observation reports and portfolio samples; and monthly *ArtExpress* newsletters.

Findings Related to Families

Families of children with disabilities comprised part of the Expressive Arts Model's (see page 5) second ring, "Roles of the Adult," and outer ring, "Resources." Adult family members play many roles including that of a responsive facilitator who plans for or structures activities and adapts materials at home and in the classroom. Family members can also serve as resources for the classroom teacher.

Over the 3 Phase 2 outreach years, 589 *Family Questionnaires* were completed by family members of children participating in the EA model (Year 1 $n = 143$, Year 2 $n = 209$, Year 3 $n = 237$). The following results are from fall 2000 ($n = 71$), spring 2001 ($n = 72$), fall 2001 ($n = 129$),

spring 2002 ($n = 80$), fall 2002 ($n = 163$), and spring 2003 ($n = 74$). Since families were not required to put their names on the questionnaires, whether the same families who returned questionnaires in the spring were the same as those who returned questionnaires in the fall is unknown.

Visual arts and families. The *Family Questionnaire* focuses on the availability of expressive arts to children in the home to determine home-to-school connections. According to the *Family Questionnaire* results, 94% ($n = 553$) of families reported their children had art materials available in the home. This is consistent with the number of families who reported having a place to keep art materials at home, 94% ($n = 552$).

Families reported on children's visual art activities at home. Twenty-nine percent ($n = 170$) of families reported that their children drew or constructed with glue or tape at home *almost everyday*, 46% ($n = 269$) said *once/twice a week*, 22% ($n = 131$) responded *infrequently*, and 3% ($n = 19$) marked *never*. However, across the 3 years of data, from fall to spring, there was an increase in the number of families reporting drawing or constructing with glue or tape at home. The number of children engaging in paint or play dough at home *almost everyday* was only 8% ($n = 46$). Thirty-seven percent ($n = 217$) reported *once/twice a week*, 45% ($n = 266$) *infrequently*, and 10% ($n = 60$) *never*. These results are consistent with the Expressive Arts Final Report 1997-2000 (Hutinger, Potter, Schneider, Guzman, & Johanson, 2002). EAO Phase 1 families reported the number of children engaging in paint or play dough at home *almost everyday* were 7% ($n = 17$), 37% ($n = 92$), *once/twice a week*, 44% ($n = 110$) *infrequently*, and 12% ($n = 31$) *never*.

Considering the results from fall to spring in all 3 years, the number of Expressive Arts families involved in visual arts at home increased by the end of each year. Families may be more aware of expressive arts as the year progresses after participating in a classroom replicating the

expressive arts model.

Technology. Technology use in the home increased over the 3-year outreach period. When parents were asked, *How often does your child play with children's programs on a computer at home*, 14% ($n = 84$) responded *almost everyday*. Families reported a small increase in the *once/twice a week* category from 17% ($n = 12$) to 22% ($n = 16$) in Year 1; from 17% ($n = 24$) to 31% ($n = 25$) in Year 2, and from 32% ($n = 52$) to 35% ($n = 26$) in Year 3. These increases may be the result of more families having access to computers at home, information sent home in newsletters from teachers, and participation in expressive arts parent workshops.

Family participation in expressive arts. Families participated at different levels. EAO defines three levels of family participation: (1) obtaining information (awareness); (2) assisting in art activities; (3) and conducting art activities. A great deal of EAO family participation over the 3 years was at the awareness level: families received an informational letter when they were sent permission forms for children's participation in the project. Classroom teachers provided EA information through newsletters. When families were asked about providing art materials and activities for their children at home, results were high each fall and again each spring (e.g., 91% - 99% of respondents). Only 23% ($n = 134$) of respondents said they participated in art activities at school; however, those who replied *no* indicated that they were unable to participate at school because of work.

Activity ideas. When asked, *Where do you get your ideas for expressive art activities at home?*, respondents gave multiple responses. In addition to the *teacher's newsletters*, 30% ($n = 178$), responses referred to on page 45, responses included *television*, 57% ($n = 334$); *parent magazines*, 44% ($n = 260$); *friends*, 30% ($n = 178$); *other* (i.e., *siblings, college courses, books, and magazines*); 22% ($n = 130$); and *web sites* 16% ($n = 94$).

Project Impact

The EA outreach procedures, described on pages 9-11, were effective in establishing 14 new replication sites and maintaining 9 continuation sites. Dissemination results and product development are described in the following sections.

Dissemination Activities

As a result of dissemination efforts, EAO staff responded to six requests to present at state or regional conferences, one request to speak at a national conference, an invitation to be part of a focus group on the development of an early childhood art program for Kentucky Education Television, and 17 requests for workshops on young children and art. In addition, staff participated in two educational broadcasts and presented to four WIU art, early childhood, and special education classes. A request from *Closing the Gap*, a national publication that focuses on technology and special education, resulted in EA staff writing an article that appeared in that publication.

Workshops and conference presentations. Over the 3-year Phase 2 period 1,894 people participated in 42 awareness events, workshops, and conference presentations given by EA staff. In Year 1 (2000-2001) project staff participated in two local, four state, three regional, and seven national events, making direct contact with 845 people. During 2001-2002, 559 people attended EAO presentations. EAO staff conducted presentations at four state, national, and international conferences and collaborated in six local and two regional events with other agencies. In 2002-2003 project staff conducted presentations attended by 490 people at six state and national or international conferences.

Products

Project staff developed a variety of products and materials during the Phase 2 outreach period. These included print materials, electronic products, and a video.

Print materials. Training modules were revised and updated. Revisions included information about new commercial and home-made low- and high-tech adaptive tools, new resources and activity ideas linking the expressive arts and early literacy, new children's graphic and authoring software, and new criteria for setting up and managing a developmentally appropriate computer center. The assessment module focused on ways the EAO child assessment tools, the *Visual Art Developmental Scale* and the *Visual Art Rating Scale*, reflected state and national early childhood and fine arts standards and supported No Child Left Behind legislation.

Project staff developed and field-tested new activities for the Integration chapter of the revised *ArtExpress* curriculum (Hutinger, Betz, Bosworth, Potter, & Schneider, 2001). Reflecting the research results of Discipline Based Arts Education, the Project Approach, and Reggio Emilia, the *ArtExpress* activities were designed to provide child experiences in expressive arts related to interests, to provide opportunities to explore processes, and to introduce children to quality adult art masterpieces.

The Family chapter of *ArtExpress* was revised to include an introduction explaining that art is an engaging activity for young children. Drawing, painting, cutting, gluing, and playing with play dough provide important opportunities for learning. The chapter details useful strategies to employ when adults interact with children and their art productions.

Monthly, from October 2000 through May 2003, project staff published and disseminated the *ArtExpress* newsletter to replication and continuation site staff. The newsletter distributed new expressive arts information to sites and offered an opportunity for site teachers to share classroom activities with each other. Site staff were invited to contribute to the newsletter. In the first year (2000 to 2001) site staff submitted 25 articles. Twenty were submitted the second year (2001 to 2002), and 25 were submitted the third year (2002 to 2003). Each submission underwent editing by

the EAO staff before it was published. Verbal and written feedback from site teachers indicated that the *ArtExpress* newsletter was a valued resource for ideas for classroom art activities.

Project staff contributed regularly to the Center for Best Practices in Early Childhood's quarterly publication, *ACTTive Technology*. During the 2000 to 2003 Expressive Arts Outreach period, EAO staff wrote 13 articles, software reviews, and curriculum activities. Many of the articles by project staff are available on-line at <www.wiu.edu/thecenter/articles.html>.

In June 2003, EAO staff received a request to submit an article to the publication *Closing the Gap*. The article, "Children's Creative Software Can Extend Expressiveness" (Potter & Johanson, 2003) appeared in the October/November 2003 issue of *Closing the Gap*.

Electronic products. The Expressive Arts staff developed a web site <www.wiu.edu/thecenter/art> which contains information about the *ArtExpress* curriculum and benefits of adopting the EA model, information about participating as a replication site, and dates of scheduled training workshops. Staff regularly revised and updated links. The site included the *ArtExpress* newsletters, the children's art gallery, art activities, and art resources. The Center will continue to maintain the EAO web site and update as needed.

Power Point was used to emphasize key points from each training module. *Power Point* presentations were used in training and conference presentations.

Video products. In January 2003, *The Schoolyard Garden Project: Linking Expressive Arts to Learning*, was produced by STARNET's Apples Magazine, a monthly satellite broadcast. The broadcast featured EA staff and three EAO site teachers from MacArthur Early Childhood Center in Macomb, Illinois, as they documented ways children represent interests, knowledge, and skills through a variety of art media as part of a schoolyard garden project. Teachers explained that the expressive arts are a natural language for young children to communicate what they know and why

it is important to them. Using the Illinois Early Learning Standards as a guide, teachers invited children to investigate elements of the expressive arts, describe their creative efforts, participate in expressive art processes, and use the expressive arts for self-expression. A video of the broadcast was used as supplemental training for replication staff. The video was broadcast throughout the country by the Western Illinois University Satellite Broadcast System and is available through the STARNET Regions I & III resource library, Western Illinois University's Curriculum Publications Clearinghouse, and the Center for Best Practices in Early Childhood.

Summary

The procedures and materials used in the EAO model and in replication efforts demonstrated the expected positive effects on elements of child, teacher, and family behaviors and attitudes. Children who sometimes did not participate in other classroom activities participated in EA activities and made progress in a number of areas important for learning.

Quantitative and qualitative data triangulated across child measures, teachers, and families indicated that EA activities positively impacted the 460 children, 192 with disabilities and 268 at risk on whom data were collected during EAO Phase 2. While children with disabilities tended to score lower on measures than those at risk, *all* made positive gains. Results showed that children engaged in a variety of expressive arts activities and investigated the elements of expressive arts; increased the number of images in their art vocabulary; increased use of art images and art activities as themes for communication; and increased emergent literacy behaviors. Results also indicated children engaged in positive social interactions while participating in art activities; increased flexibility, fluency, and level of expressiveness in art products; developed detail and complexity of art products; and demonstrated an understanding of how to communicate thoughts and feelings through images and symbols.

Results from the *Visual Arts Developmental Scale* indicate improvement in areas of cognition, communication, social skills, fine motor skills, and gross motor skills. Teachers reported that children decreased tactile defensiveness and demonstrated improved self-confidence, time on task, and participation. Families reported development of eye-hand coordination; ways to express knowledge and feelings; ways to communicate with others; development of visual/symbolic vocabulary; and increased self confidence and self esteem as benefits children received from participating in art activities.

Data triangulated across eight teacher data sources demonstrated positive changes in teacher behaviors. These changes included incorporating EA principles into curriculum and integrating art activities into a variety of curricular domains; making adaptations in classroom structure to facilitate EA activities; linking emergent literacy with EA activities; including art activities for children with physical disabilities; making adaptations to meet specific children's needs; and involving families in EA activities. In addition teachers used computers, specific software, or peripherals to help children meet developmental goals. They used portfolios to document children's work and assessed children's artwork and development using EA's *Visual Art Developmental Scale* and *Visual Art Rating Scale*. Data gathered from families indicated satisfaction with the art activities teachers provided children.

Family participation was apparent at three levels (1) obtaining information (awareness); (2) assisting in art activities; (3) and conducting art activities. Family awareness of and participation in expressive arts activities increased over the 3-year period.

Considerations for Further Study

Further study of the reliability and validity of the *Visual Arts Developmental Scale* and the *Visual Arts Rating Scale* is recommended. Since art and emergent literacy are closely related, further study of the relationship between characteristics of children's drawings, images, and emerging literacy knowledge and skills would yield important developmental information to early childhood practitioners and families of young children with disabilities.

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