

# **Pyramid Power: A Train-the-Trainer Model**

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## **Abstract**

In 2000, two Minnesota art museums began the development of statewide networks for training teachers to integrate internet-based educational tools and resources into their classrooms and teaching techniques. This paper examines the design and implementation of a train-the-trainer program designed to teach the use of [www.artsconnected.org](http://www.artsconnected.org) (a Web site developed jointly by The Minneapolis Institute of Arts and Walker Art Center) in classrooms across the state of Minnesota. The goals of the program: 1) create a collaborative laboratory for exploring meaningful classroom applications of on-line teacher resources; 2) create a community that will sustain the use of on-line teacher resources throughout Minnesota; 3) build bridges between the cultures of the classroom and the art museum; 4) increase the sophistication of teachers' use of on-line teacher resources; and 5) expand teachers' use of technology in general. Personal anecdotes and valuable lessons learned through formal evaluation of this program illuminate global issues of interest to all educators.

## **Introduction**

Two Minnesota art museums have developed a statewide network for training teachers to integrate ArtsConnectEd, an internet-based educational resource, into traditional classrooms and teaching techniques. A train-the-trainer program was designed to teach the use of [www.artsconnected.org](http://www.artsconnected.org) (a Web site developed jointly by The Minneapolis Institute of Arts and Walker Art Center) in classrooms across the state of Minnesota.

## **The Evolving Partnership**

The partnership between the Education Departments of The Minneapolis Institute of Arts (MIA) and the Walker Art Center began in 1995 when each museum designed catalogues of educational resources for K-12 teachers and mailed them together in one envelope. The joint mailing required that the museums collaborate on design, pool their mailing lists and share mailing costs. The response from the Minnesota teaching community was very positive. Teachers expressed the sentiment that finally the two largest art museums in the state had quit competing with each other and focused on serving teachers.

As the Web emerged, both museums also made their catalogues available electronically through their respective Web sites. Simultaneously, some of the material listed in the catalogues was being converted for on-line delivery. Originally the on-line catalogues and other electronic teaching resources were straight HTML. As interest in these resources grew, so did the desire to make the material searchable. In addition, both museums began to digitize their art collections to participate as founding members of the Art Museum Image Consortium (<http://www.amico.org>). In 1997, the Minnesota Office of Technology began offering funding to encourage the development of on-line resources. During this year, technology staff from the MIA and Walker met to explore on-line project ideas that might overlap, address State funding requirements, and further bolster each museum's commitment to on-line resources. The Integrated Art Information Access Program, later renamed ArtsConnectEd, was the product of these meetings.

## **Technical Grassroots**

ArtsConnectEd grew to become a portal to the combined digital resources of the MIA and Walker, including works of art, educational resources, audio, video and text archives and library catalogues. Funding opportunities as well as the educational resource catalogues that were the birth of the partnership motivated the technologists to consider K-12 educators a primary audience. In 1997, the Minnesota Department of Children, Families and Learning awarded ArtsConnectEd \$1 million to continue its work putting the collections of both museums online.

Both the Walker and the MIA were struggling to address growing demands to put traditional print-based educational resources into the hands of educators, and ArtsConnectEd was designed to provide an unlimited 24/7 means of addressing those demands. The museums quickly realized that they would have to make an investment in helping teachers use technology and the Internet. Wiring of schools in Minnesota and nationwide was moving quickly, and ArtsConnectEd developers assumed that access would increase as quickly as new resources were generated. ArtsConnectEd was able to make a case as an investment in technology and education, and in 1999 received an additional grant of \$2 million to continue its work for and with teachers.

## Interface Design

ArtsConnectEd began with the idea that using query similar to Google as the primary interface for searching the collections of both museums would best serve the audience of K-12 teachers. But following usability testing, technologists began prototyping new interfaces designed to better suit teachers needs. They enlisted the help of usability experts and the museum educators at both institutions. The resulting interface, publicly released in the fall of 1999, incorporated resource-specific queries, wizard/assistants and menus to better meet the needs and requirements of the K-12 educational audience.



*ArtsConnectEd Home page*

## Management by Committee

As the usage, care and feeding of ArtsConnectEd began to grow, a more formal team structure was needed to set and obtain long-term project goals. Four committees composed of representatives from both the MIA and the Walker were established to achieve these ends: Steering Committee, Technology Committee, Education Committee and Marketing Committee. The Education Committee defined new content and resources to be made available on ArtsConnectEd and began to explore strategies of training teachers to use it.

## A State-wide Training Strategy

### Equitable distribution

The state of Minnesota is 84,068 square miles and contains 341 school districts to serve a population of 4,610,000. The MIA and Walker are located in the most densely populated urban area of Minneapolis, but the majority of Minnesota educators outside the Twin City area were grossly under-served. The state legislature wanted their investment in ArtsConnectEd to reach the whole state. In order to secure additional funding from the state, the museums needed to design their teacher training program to impact all of Minnesota.

### Training Goals

The ArtsConnectEd Education Committee identified two initial goals: to teach the use of ArtsConnectEd in classrooms around Minnesota, and to coach and support teachers learning to use ArtsConnectEd. Providing teachers time to learn to use ArtsConnectEd in a workshop setting might help address the problems teachers have finding time on their own for such professional development. ArtsConnectEd teacher training could also supply the support that teachers need in their use of technology and relieve school districts of some staff development pressures felt around technology in the classroom.

## **The Train-the-Trainer Model**

The ArtsConnectEd Education Committee began its design of a state-wide teacher training program by considering a traveling resource model such as Plains Rolling Art Gallery (<http://www.plainsart.org/education/rpag.shtml>) or Experience Music's Electric Bus (<http://www.emplive.com/visit/electricbus/index.asp>). However, this strategy had a here-and-gone impact without lasting support, and one trainer on the road could reach only a small number of teachers. The alternative approach of a train-the-trainer model was conceived, using a pyramid system to reach as many teachers as possible throughout Minnesota.

The train-the-trainer model is based on one lead trainer developing a highly skilled core group of teachers from around the state, who would in turn conduct workshops in their regions. The Education Committee chose to recruit a core group of 24 teachers, 18 from around the state and six from the Minneapolis/St. Paul metro area. Each member of this core group would contract to teach at least four workshops of 15 teachers each after they were trained, so 24 trainers would workshop 60 teachers each, resulting in a grand total of 1440 Minnesota teachers trained to use ArtsConnectEd in their classrooms during the 2001-2002 school year. Theorizing that each teacher is responsible for at least 30 students during a school year, the Education Committee estimated that students using ArtsConnectEd could reach 43,200 during 2001-2002.

## **ArtsConnectEd Training Plan**

Once the model for the training program was determined, the Education Committee examined its resources and decided that each trainer would receive a Macintosh G3 Powerbook computer in order to ensure equal access to standardized equipment and software. Each trainer would also receive reimbursement for lodging and mileage and a \$200 stipend to travel to Minneapolis for three training sessions in 2001. In return, the trainers would commit to use ArtsConnectEd with their students in the classroom, as well as plan and deliver four ArtsConnectEd workshops in their regions during the 2001-2002 school year. Trainers would receive a \$200 stipend for each workshop they conducted and an overall expense account of \$500. During the two-year training period the trainers would also participate in an on-line threaded discussion list with the lead trainer and each other, as well as participate in an evaluation of the program.

### **Lead Trainer**

In the summer of 2000, the Education Committee began the search for an ArtsConnectEd Lead Trainer. The Lead Trainer would be responsible for developing both print and electronic training materials and classroom assessment models, and would moderate the threaded discussion list with the 24 trainers using *WebBoard* software. Once the 24 trainers were fully trained, the Lead Trainer would observe the workshops they provided for their peers and work with a contracted evaluator to study the effectiveness of the training program.

The Education Committee identified the following qualifications for the Lead Trainer: 1) a licensed art educator experienced in teaching with technology and in developing online teacher resources; 2) previous experience working with art museums; 3) knowledge of the Minnesota community of educators; and 4) willing to travel to various parts of Minnesota to observe each of the 24 trainers in action.

Because the Lead Trainer was a temporary contract position, the Lead Trainers relationship to permanent museum staff would need to be transitional. Therefore, each museum selected a member of its education staff to attend all training workshops and work closely with the Lead Trainer to ensure continuity. The Lead Trainer was given a museum e-mail address (acetrainer@artsmia.org) and an assistant was identified on staff at the MIA to serve as a liaison between the Lead Trainer and in-house museum services and procedures.

### **Trainer recruitment strategy and application process**

The Committee decided to target art teachers in their recruitment strategies in order to promote the art education profession in Minnesota. The Education Committee reasoned that recruiting art specialists to become ArtsConnectEd experts would be a statement of support for the profession and a leg up for art specialists who were often shut out of access to technology in favor of more technical subject areas like business or science.

Another consideration was whether to target teachers who needed education in technology and inspiration to use technology in the art classroom, or to target those teachers who were already technology savvy and had demonstrated leadership in the field. In the end the Committee chose to recruit leaders in the field, hoping to inspire others through the examples set by the trainers.

An advertisement was placed in folders handed out at the fall conference for Art Educators of Minnesota, and also was sent to the state's mailing list of art educators and the state's Best Practices Network, a group of 50 arts teachers assembled from all over the state who are knowledgeable about the research on best practices for effective teaching and learning in the arts.

The application packet consisted of a letter detailing the commitment a trainer would need to make if selected, and the application procedure. In order to ensure that applicants had the blessing of their school administrator, a letter of support was also required with the completed application. The application form required applicants to specify which grades they taught. The Education Committee had determined that trainers would be chosen from those teaching grades 4-12 since ArtsConnectEd was not designed for use by preschool children or the very young grades K-3. Thus an art teacher responsible for grades K-6 in a large elementary school fit the target applicant profile more than a teacher responsible for grades K-4 in a smaller school.

A question was included on the application regarding the teachers prior experience with museum educational materials. The applicants demonstrated leadership history was required in terms of memberships in professional organizations and awards or honors, as well as a short essay outlining their philosophy in regard to the integration of technology in classrooms. A series of questions was included about how often the applicant used the Internet to determine the applicants comfort and familiarity with Internet resources. Finally, each applicant was also required to sign a statement saying that they read and understood the job description, to avoid having applicants who later withdrew over misunderstandings regarding what was required.

### **Trainer selection**

150 requests for applications were received by the December 1, 2000 deadline, and 89 completed applications were received by the December 15, 2000 deadline. Each application went through an initial screening process in which applicants who didn't fit the recruitment criteria of teaching in grades 4-12, and applicants who indicated

that they never used museum resources or never used the Internet were eliminated. The geographic home of the remaining applicants was plotted on a map of Minnesota. The Education Committee met and reviewed the remaining applications, choosing 24 based on the criteria of geographic location, qualities of leadership, experience training teachers, and on the essays regarding the use of technology in the classroom. As a final check, at least one of the two references listed on each of the 24 finalist's applications was contacted. The applicants who were not selected were sent thanks you letters and a gift of catalogues of the MIA's collection and the Walker Sculpture Garden.

*All 24 ArtsConnectEd trainers said in their application essays that technology was essential in bringing resources to classrooms that otherwise would not be able to take advantage of all museums have to offer due to economics, geography, or both.*

The selected group represented a distribution of elementary, middle and high school art teachers. All were informed at their first training meeting in February 2001 that they would be required to sign a contract with ArtsConnectEd for their work over two years.

### **The Marketing Plan**

A marketing firm was hired to develop a marketing plan and materials for ArtsConnectEd teacher-training during year two when the trainers were in the field teaching their workshops. An ArtsConnectEd poster and three-ring-binder were developed before the 2001-2002 school year began, enabling trainers to use posters to market workshops and binders to be filled with customized material for each workshop. A media kit was developed and the marketing firm tracked the workshops as they were scheduled on the threaded discussion list. As each workshop was scheduled, the marketing firm sent a media kit to the host community's press.

### **Program Goals**

Once the 24 trainers were selected the Education Committee interviewed and contracted an evaluator specializing in outcome-based evaluation to design an evaluation of the train-the-trainer program as well as one for the workshops the trainers would teach in year two. Goals established were 1) create a collaborative laboratory for exploring meaningful classroom applications of on-line teacher resources; 2) create a community that will sustain the use of on-line teacher resources throughout Minnesota; 3) build bridges between the cultures of the classroom and the art museum; 4) increase the sophistication of teachers use of on-line teacher resources; and 5) expand teachers use of technology in general.

### **Training the Trainers - Session One**

#### ***Goals for Session One***

1. Increase trainers computer competence, particularly with their Macintosh Powerbooks
2. Effectively communicate the basic structure and uses of ArtsConnectEd.
3. Build a learning community between the two subgroups of twelve trainers.
4. Begin to build bridges of understanding between the cultures of the museum and the classroom.
5. Promote an attitude of professionalism and accountability
6. Acquire trainers commitment to use of threaded discussion list software
7. Reinforce the trainers commitment to use ArtsConnectEd with their students.

In February of 2001 the trainers arrived at the MIA for their first one-and-a-half-day training session. The group of 24 had been split into two groups of 12 to allow for more individual contact time with the Lead Trainer. Each group of 12 would remain together throughout the training in an effort to build community among the trainers. To promote a professional attitude, business cards were made for each trainer and were placed at their seats along with the agenda for the session and the contracts they were required to sign. The following trainers version of the goals for ArtsConnectEd teacher training was reviewed with the group:

After completing three training sessions in 2001 ArtsConnectEd Trainers will:

1. create an ongoing collaborative laboratory in which criteria for effective classroom use of ArtsConnectEd is discovered, developed, discussed and tested.
2. work as a team to create and evaluate 24 classroom tasks that demonstrate effective classroom use of ArtsConnectEd.
3. increase technological proficiency and aptitude to advocate for increased access to art resources and technology in K-12 classrooms.
4. develop skills that provide leadership in arts education in Minnesota.

In addition, trainers were informed that over the course of their training they would work with the Lead Trainer to build a tool kit containing skills, materials and resources that they could later draw upon to create effective, high quality workshops for their peers in year two. Once the house-keeping was out of the way, the computers were distributed and the rest of the day focused on a series of activities aimed at building overall computer confidence and increasing trainers familiarity with the specifics of their new tool.



*Trainers install memory in their new computers*

Day two began with breakfast and a question and answer session at the Walker Art Center. Mid-morning, the trainers moved back to the MIA to learn how to configure their computers to access the Internet via both network and dial-up connections.

Development of an on-line ArtsConnectEd tutorial had begun prior to the first training session and the trainers were asked to beta test the program while simultaneously learning about ArtsConnectEd. After lunch the trainers were provided with a field trip behind the scenes at the museum where they followed a work of art from the galleries to the digital photography studio to the computer where the metadata related to the digitized image was input for inclusion in the ArtsConnectEd Web site.



*Trainers visit the MIA's digital photography studio*

Beyond providing an in-depth understanding of the internal work process behind ArtsConnectEd, this experience helped cement the trainers' relationship with the museum, making them feel more like museum staff and less like outsiders looking into ArtsConnectEd. Back in the classroom, trainers were taught to use ArtsConnectEd's threaded discussion list software (*WebBoard*) and received their assignments for the period until the next training session: use ArtsConnectEd in the classroom with your students, and report to each other about your trials via the threaded discussion list.

## **Training the Trainers - Session Two**

### ***Goals for Session Two***

1. Continue to build bridges of understanding between the cultures of the museum and the classroom.
2. Develop criteria for effective classroom use of ArtsConnectEd based on classroom trials with students.
3. Brainstorm a list of task ideas with trainers based on classroom trials with students.
4. Align task ideas with the Minnesota Graduation Standards using SPACE chart tool.
5. Communicate a procedure for each trainer to write a draft of a task using ArtsConnectEd in a K-12 classroom.

Session two of ArtsConnectEd training began in March of 2001 with a tour of the art storage vaults at the MIA. The MIA Registrar who led the tour introduced the trainers to the vast holdings of the museum that were not on public view but only available via electronic access. This exercise helped reinforce the unique entrance that ArtsConnectEd provides to the entire collection, well beyond the 3-5% of works

currently hung on the gallery walls. The Registrar also provided the trainers with information about the lengths that museums go to in order to properly preserve and care for works of art. The experience furthered the goal of immersing the trainers in the mission and culture of museums. Following the tour, each trainer reported on classroom trials with ArtsConnectEd, and several had related student work to share.

The second goal for the trainers: work as a team to create and evaluate 24 classroom tasks that demonstrate effective classroom use of ArtsConnectEd was introduced with a definition of a task. The Lead Trainer had considered that several tasks might be bundled to create a Performance Package, an assessment tool used to determine whether students were meeting Graduation Standards. The task format allowed for the creation of smaller, more manageable units of instruction than traditional lesson plans. A task form was developed and explained so trainers would be familiar with the end product of their goal.

Trainers brainstormed ideas for tasks based on their trials with ArtsConnectEd in the classroom. Once an initial list had been developed, the evaluator led the group to determine criteria for an effective classroom task. Trainers discussed and determined the following criteria:

1. ArtsConnectEd is required to complete one or more components of the classroom task.
2. Classroom learning outcomes are evident in the task.
3. All tasks are aligned to the Minnesota Graduation Standards.
4. All tasks can be assessed.
5. Use of ArtsConnectEd in the task is planned for a range of available technology.
6. Some tasks are designed to accommodate a diverse range of learners.

Once the criteria were agreed on, the group measured each task idea against the criteria and revised or discarded task ideas that didn't measure up. A final list of all task ideas that met all of the defined criteria was placed on the threaded discussion list after trainers returned to their schools, and each trainer signed up to formally write up one task in the predetermined form. Once all the trainers adopted a task idea to write about, each received a blank task form, a set of written instructions for completing the task form, the SPACE chart that accompanied the task they selected, and a sample completed task form. Trainers were instructed to bring a final task draft to their final training session in June to be critiqued by the group.

## **Training the Trainers - Session Three**

### ***Goals for Session Three***

1. Continue to build bridges of understanding between the cultures of the museum and the classroom.
2. Evaluate 24 classroom tasks that demonstrate effective classroom use of ArtsConnectEd.
3. Demonstrate setup and use of LCD projector.
4. Define role of ArtsConnectEd trainers in marketing plan.
5. Define procedures for reporting on workshops completed during year two.

Session three of ArtsConnectEd training began in June of 2001 with a tour of the archives at Walker Art Center. The archives house documentation of works of art over the history of the Walker, including artists models, film, video and audio

recordings of performances, correspondence concerning commissioned work or artist residencies, etc. Next, trainers attended a briefing session with the marketing firm hired to promote ArtsConnectEd throughout the state during year two.



*Trainers review resources in their final training session*

That afternoon, the trainers received instructions on care, use and shipping procedures of two LCD projectors purchased for trainers to use in their workshops. A reservation system was set up using the threaded discussion list, where trainers would schedule shipment of the projectors to workshop sites. On day two of the final training session, each trainer distributed copies of the task they had written for group feedback. Following the group discussion, each trainer had two weeks to make final revisions based on the group feedback and submit the final written tasks. Over the summer, an editor edited the tasks and a graphic designer laid out any accompanying handouts. These final versions were compiled in an on-line database that the trainers accessed beginning in the fall of 2001. The trainers could print any of the 24 tasks via the database for distribution in their ArtsConnectEd workshops.

### **The Evaluation**

A three-prong evaluation plan was developed for assessing the effectiveness of training the trainers. First, a pre-survey and a post-survey were developed to measure the growth of the 24 trainers skills before and after their training. Second, an observer recorded the instructional techniques used and their effectiveness, during each of three training sessions. Third, after each session, the trainers were asked to reflect on and evaluate their training by answering questions on the threaded discussion list. All of the results from each session were compiled, analyzed and shared with the trainers to enable them to make use of what was learned in the evaluation when constructing their own workshops.

### **Survey Results**

The pre- and post-surveys measured quantifiable skills, and the results from those surveys showed that the trainers acquired the skills they needed to successfully transfer their knowledge of ArtsConnectEd to other teachers. Above all, the survey

showed that Art Collector, a tool in which users build their own art collections, saw the greatest growth in use over the course of the training period.

### **Observation Results**

The observers at each training session identified the following teaching techniques over the course of the trainers training:

1. Observing a demonstration
2. Clicking along on your own while the instructor provides instructions
3. Group Show and Tell Presentations (trainers share their own experiences)
4. Handouts (paper and electronic)
5. Field trips out of the classroom for a behind-the-scenes museum experience
6. Group discussions
7. Hands-on knowledge and skills gained (as in installing computer memory)
8. Electronic ArtsConnectEd Tutorial
9. Modeling a process
10. Cooperative learning where trainers teach each other
11. Group Critiques
12. Lecture

### ***Results from Questions on the Threaded Discussion List***

The list of teaching techniques above was posted on the threaded discussion list and trainers were asked to identify which technique or set of techniques helped them learn the most. They responded that the combination of ALL techniques used was most effective. In response to questions about what worked well during their own training, trainers identified learning computer tricks such as keyboard shortcuts and search tips as one of the ways that their confidence as computer users was increased. Their confidence as museum users increased when behind-the-scenes information was shared.

Using handouts was also emphasized as a powerful teaching tool, one that addressed different learning styles and provided backup for information given in instruction. In fact when trainers were asked what could have been done to improve their own training experience, the response was more handouts! The Education Committee had developed a written and illustrated full-color Teachers Guide to ArtsConnectEd before the teacher-training program began, and trainers embraced this guide as a basic handout for all their workshops. (Download the guide at <http://www.artsconnected.org/classroom>)

When the trainers were asked what was learned using ArtsConnectEd in their own classrooms, they reported that students were impressed that the works of art they were seeing on-line could be found in their own state.

When asked to pinpoint times when they were most engaged, trainers recalled the periods when they were able to interact with and learn from each other. Making meaning relate to students at a personal level has long been a goal of expert teachers. Tasks and rewards that were meaningful personally as well as professionally were also identified by the trainers as influential teaching tools.

*There seems to be significant differences in the minds of students between art that is in cyberworld and examples of art at a local museum. For my students Internet searches were about an idea of art or artist and were not concrete. Now, with ACE, the artwork is attached to a real place. It's subtle but very significant.*  
-Kevin Langmaack, ACE Trainer

Finally, the trainers articulated importance to their overall sense that museum staff and the Lead Trainer treated them with respect and thought of them as professionals. Often the trainers said they strove to behave more professionally because they were treated as professionals.

### **Task Evaluation**

The 24 tasks written by the ArtsConnectEd trainers were evaluated by a team consisting of the evaluator, Lead Trainer, and an education staff member from the Walker and the MIA. The evaluator designed a rubric based on the criteria for effective classroom tasks, and three members of the evaluation team scored each task. The resulting scores show that the tasks scored highest in aligning with the Graduation Standards, an exercise that included using a concrete, hands-on tool.

### **Evaluating Trainers Workshops**

The evaluation of the trainers workshops was conducted via a two-page survey at the end of each workshop. In addition, each trainer was required to reflect in the threaded discussion list on what went well and what could have gone better during each workshop. The evaluator designed a follow-up phone interview for a random sample of those who attended ArtsConnectEd workshops, to be conducted in February of 2002, to determine the effectiveness of the workshops in creating ArtsConnectEd users.

### **Ongoing Trainer Workshops in Year Two**

To date there have been 100 workshops scheduled for the 2001-2002 school year, and 75 of those have already taken place. Many trainers used contacts they had in their areas to schedule workshops during the school districts staff development days, while other trainers took advantage of events already planned such as state conferences that accepted proposals for presentations. Almost all trainers have planned workshops for other staff in the buildings where they teach, and every college in the state that graduates teachers has been contacted with great success with offers of training pre-service teachers. Over 700 people who have attended workshops filled out evaluation forms, and the data has been very positive: 99% say they have acquired the skills and knowledge they need to use ArtsConnectEd, and 73% say they acquired the skills and knowledge they need to use ArtsConnectEd in their classrooms. A full summative analysis of the outcomes of these workshops will be developed in fall of 2002.

## **Looking Ahead**

### **Museum Fellowships**

In the spring of 2002, ArtsConnectEd trainers will have an opportunity to apply for two summer fellowships to develop and complete individual projects related to the goals of ArtsConnectEd and technology use in K-12 art classrooms.

### **Higher Education Symposium**

ArtsConnectEd will also seek to partner with a Minnesota College or University to host a symposium on the use of Web-based resources in K-12 education for all faculties of Minnesota colleges where teachers are educated.

### **Advanced Regional Workshops**

All Minnesota teachers who attended one of the teacher-trainers ArtsConnectEd workshops during the 2001-2002 school year will be invited to one of three regional

ArtsConnectEd workshops in the 2002-2003 school year. Designed by museum staff, these workshops will take ArtsConnectEd users to advanced levels, building on skills learned from the teacher-trainers.

Possibilities for continued or expanded training continue to be explored. While art teachers are perhaps best equipped to understand the value of art museums, there are many potential interdisciplinary applications of ArtsConnectEd. Art teachers require in-depth understanding of other disciplines to be able to teach to teachers of other disciplines. Expansion of teacher training might mean exploring interdisciplinary work with teachers other than art teachers.

## Lessons Learned

While the ArtsConnectEd Education Committee is still analyzing the teacher training and formulating what has been learned, some initial lessons can be brought to light. Teachers are in great need of continuing professional development when it comes to using technology in the classroom. ArtsConnectEd trainers were selected for their familiarity with technology; even so, they demonstrated during their training sessions that their knowledge, skills and confidence in working with technology were very diverse. Museums would do well to consider this diversity in skills when developing on-line resources, by designing a range of tools and interfaces for accessing electronic materials.

Giving ArtsConnectEd trainers a look behind the scenes of the museum created dedicated fans who delighted in discovering and exploring all the roles that art museums play. Art museums might have great success making new connections with current visitors and potential visitors by revealing more of the inner workings of the museum to an obviously fascinated public.

Teachers need to be considered professionals, but unfortunately they aren't always treated that way. ArtsConnectEd staff learned that when teachers are treated as professionals, they become more committed, more enthusiastic and more willing to go the extra mile for their students. Supplying teachers with up-to-date materials, professionally produced, and expecting professional behavior created an atmosphere of respect and dedication among the ArtsConnectEd teacher-trainers.

*You have done a lot to make us, the trainers, look and feel very professional. All of you have made us feel very special, a feeling not always granted to us as teachers - especially in the arts field. Thank you for making this the best professional development experience I have ever had.*  
- Jeff Pridie, ACE Trainer

Comprehensive online resources, particularly those providing access to the museum collections, provide a drastically new paradigm for educators working with art in the classroom. Watching teachers learn to use ArtsConnectEd became like watching teachers and students use a doorway from the school into an art museum. But on-line museum resources like ArtsConnectEd can be more flexible for teachers than an art museum. In ArtsConnectEd it is possible to search through storage, organize your own exhibition and write your own labels. Giving teachers museum materials has always been a good idea, but giving teachers tools to access museum collections and all they have to offer provides a more powerful connection.

Finally, as for the train-the-trainer model itself, while the number of teachers and students impacted is impressive in its own right, the long-term impact has yet to be measured. The ultimate goal of sustained and meaningful use of ArtsConnectEd in classrooms across Minnesota as a result of workshops offered by the trainers seems within reach, but documented attainment of that goal is in the future.



*ArtsConnectEd trainers Janet Grove and Craig Farmer conducting a workshop for Best Practices teachers at the Minnesota Department of Children Families and Learning*