The Story of Putting Together an Online Teacher Resource
Creativity Resource: The Story of Putting Together an Online Teacher Resource

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Introduction

In 2008 the Education Department at the Denver Art Museum (DAM) received a grant from the Morgridge Family Foundation to begin the development of web-based, curriculum-integrated classroom resources for teachers based on the DAM’s permanent collections. We called the web resource Creativity Resource (CR). You can find it at http://creativity.denverartmuseum.org/. We wrote this report to both tell the story of how we created the Creativity Resource website and also to share what we learned along the way and some of the key decisions we made. The DAM is a latecomer to this service area, and we learned a lot from how others have created similar resources. We are designing this document with “Tips” that address key decisions that every such project faces and the directions we decided to take. You might call them our best practices recommendations, but we recognize that there is more than one way to solve any problem and that many great teacher resources exist on the web. We hope that our story and key decisions are helpful to others working in this area.

Two interesting things happened as we initiated the CR project. First, after hearing that we wanted to develop a web resource, advisors from the Morgridge Family Foundation counseled us to raise our funding goal and make it higher. The Morgridge Family Foundation provided significant grant funds to make this project possible. Patty Williams, Head of School and Teacher Programs, suggests, “Without the advice from the foundation and in-house advice from Bruce Wyman, Director of Technology, we would not have succeeded. If you’re an educator and not technologically well-versed in the
specifics of the web service you want to create, get expert advice so you can have the funding you need. Many other online resources have cost much more than ours and are much larger and more interactive, but the funding we got allowed us to create a baseline product that we can build upon.”

The other early fortuitous event came from an entirely different source. As Williams explains, “Just before getting the Creativity Resource grant, we were approached by another foundation, the Berger Collection Educational Trust (BCET). This foundation collaborates closely with the DAM, and we display and care for their wonderful collection of British art. About nine months before we started the Creativity Resource, the BCET asked if we could explore the best practices among art museums for teacher web resources.” The BCET has its own website (found at http://www.bergercollection.org/) and was also interested in doing more for teachers. As a result, we compiled a binder of sound advice, examined many models, invited art museum experts to confer with us, and discovered some teacher feedback studies that others had done in this area. “Without this deliberate effort to learn from those art museums already experienced in this area,” says Williams, “we would have made many more mistakes, and it would have taken us much longer if we had started from scratch.” A summary of this report, “Exploration of ‘Best Practices’ Among Art Museums in Developing Web Resources for Teachers,” can be found at http://creativity.denverartmuseum.org/resources/aboutthedam/.

It is worth mentioning that an unexpected event happened during the course of this project, and it impacted almost every aspect of our work. During our period of grant funding, the United States experienced the 2008-2009 economic crisis, and the DAM had to substantially reduce staff and programs. In order to successfully complete the project, we had to determine who was available to work on CR and how tasks could be completed most efficiently. We do not detail the many small adjustments we had to make in this report, but suffice it to say that many changes occurred throughout this project.

During the first year of CR grant funding, we defined project goals and technical requirements, collaborated with professors and graduate students from the Morgridge College of Education at the University of Denver, and assigned responsibilities to museum staff, mostly staff in the Education Department but also in the Technology, Communications, and several other departments. Based on advice we received from the BCET funded research, we also decided to start small and developed a beta phase of the website. A beta phase is a phase of development that provides users with a sample of what a final website will look like. For our beta phase, we set the main components of the website in place and got a core group of 25 artworks online. The point of our beta phase was to get enough content online so we could test the website, conduct a teacher evaluation asking for suggestions and improvements, and have enough time to add even more artworks and make any changes or improvements.
Two years later, as the grant comes to a close, the Creativity Resource website has 100 artworks online, each with a variety of accompanying resources:

- High-quality digital images of the artworks (some as 360°-view rotatable images)
- Art information describing who made the artwork, what inspired it, and specific things to look for (with detailed images)
- Lesson plans and teaching ideas for early childhood (ages 3 to 5), elementary (grades K to 5), and secondary (grades 6 to 12) students that often combine visual and language arts learning
- External resources for each artwork (such as supplemental websites, books, videos, and music clips that teachers can incorporate into lessons)

The website also provides a straightforward means for teachers to share the projects their students create and make teaching suggestions that we may add to the site as time goes on. We also included a Resources section on the website that includes teaching tips, teaching resources, resources on creativity, and resources for teacher and educators interested in advocating for arts in the classroom. The Resources section lists links to information about the DAM’s school and teacher, family, and adult programs, and also provides downloadable copies of our tour program manuals. (The Resources section can be found at http://creativity.denverartmuseum.org/resources/.)

Each artwork has accompanying lesson plans, background information, and a high-quality color image that can be viewed on the website and be printed out.

*Vase with Palace Scene*, About AD 600–900, Artist not known, Maya, Guatemala. Funds from various donors, Volunteer Endowment Fund, and department acquisition funds.
Tip #1

Starting small and evaluating

Plan ahead for a test development phase that has all the key components of your resource but is still small. We called this development phase our beta phase. The beta phase was completed during the first year of a two year grant. After its development, we asked teachers to evaluate the site. This allowed us to make revisions in response to teacher users. Their feedback impacted the final overall site.
Why a website?

The Education Department at the DAM has long made a commitment to collaborate with teachers to help bring visual art to students in various ways. The School Tour Program, which serves more than 35,000 students annually, builds art-viewing skills and offers in-depth examinations of collections by culture and medium. The basic tours program is based on “object-oriented learning,” a theory developed by Patty Williams, Carol B. Stapp, and other educators at the Philadelphia Museum of Art in the 1970s. Fundamentally, the tours are about the student’s experience of the museum and its artworks and feature a high level of interactivity. The DAM took a leading role in the 1980s and 90s in developing docent training and touring techniques that moved art museums away from the “walk-and-talk” tour and into experiential and inquiry-based tours. The museum’s school touring techniques and approaches impacted Creativity Resource in several ways. The primary goal with both school tours and Creativity Resource is to encourage individual experiences with a museum object. (For information on object-oriented learning, please see the articles “Defining Museum Literacy” by Carol B. Stapp and “Object Contemplation: Theory Into Practice” by Patterson Williams in the Winter 1984 issue of The Journal of Museum Education, Vol. 9, No. 1. To see two of the DAM’s tour manuals, titled Imagination Games and Perception Games, please click on the Ideas Behind our School Tours Program section at http://creativity.denverartmuseum.org/resources/aboutthedam/.)

The DAM has also hosted a variety of teacher workshops over the years, from week-long institutes (all grant-funded) to an annual program of 5 or 6 one-day Saturday workshops on visual skills and cultural topics with credit available from local universities. “We valued our teacher work for the contribution it made to our school system and for the multiplier effect we had when we worked with teachers then they worked with many students over many years,” explains Patty Williams. “We had decided that investment in teacher professional development was a priority for the museum, but, of course, the degree of activity we could afford was balanced with other priority programming areas like building the museum into a rich destination for families and the enrichment of interpretive materials in our galleries and exhibitions.”
In other key program areas we had already discovered the importance of building what we came to call “hardcopy” resources for museum visitors. Hardcopy resources, such as a Family Backpack, require an initial investment of money and time as they are created, piloted, tested, and implemented in multiples, but they can then be used at minimal cost for the next 5 to 10 years. As Melora McDermott-Lewis, Director of Education, explains, “If we invest in a good product now, it’s going to have a life, and it’s going to have a multiplier effect way beyond what we give it initially.” That same concept of developing hardcopy resources applied to development of installed interpretive materials as well. So we thought, how could we apply what we had learned in these areas to build bigger and better teacher program? This is when we decided to focus on developing web resources.

Patty Williams explains other reasons the Education Department was interested in creating a web resource. “We wanted to take the resources that we have at the museum and make them available to teachers who can’t visit or bring their kids on a field trip,” she says. “I felt like we already had a very strong tour program. We had a baseline teacher workshop program. The big piece we were missing was making our collections available for use in the classroom.”

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**How did the DAM create this site?**

**Who worked on this website?**

When looking for a project coordinator to oversee this substantial undertaking, Patty Williams explains, “We wanted somebody who had experience using the technology we wanted to use but also experience using it with the audience we wanted to reach—teachers. We wanted someone who also knew about art museums, education, and schools.”

Ellen Spangler, a graduate of the Masters Program in Museum Education at The George Washington University, had all the experience and background the Education Department was looking for. After graduating with her MAT, Spangler worked at the Smithsonian American Art Museum. There she used videoconferencing technology to provide classrooms on military bases around the world with personalized presentations about art for teachers as well as teacher workshops on how to use technology and art in the classroom. “I was able to apply a lot of that experience to this position,” says Spangler. “Knowing how to work with teachers

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We wanted to take the resources that we have at the museum and make them available to teachers who can’t visit or bring their kids on a field trip.

— Patty Williams
and how to communicate in a web environment have been key.” Spangler’s full job description appears in appendix A.

Other key members of the Creativity Resource team include:

- Patty Williams, Head of School and Teacher Programs
- Jocelyn Howell, Creativity Resource Project Associate (hired with grant funds)
- Kim Nochi, Editor (hired with grant funds)
- Lisa Levinson, Senior Interpretive Writer
- Master Teachers— The collaboration of master teachers and curators at the DAM unites knowledge of educational theory, interpretation, and the particular needs of individual visitor groups with expertise in individual collections, art, cultural context, and history.
- Interns from the University of Denver, University of Colorado, and colleges and universities all over the United States and Taiwan
- Staff in Accounting, Administration, Exhibition and Collection Services, Communications, Conservation, Curatorial, Development, Education, Protective and Facilities Services, Photography, and Technology Services and Development departments all contributed time.

Why did you choose the theme of creativity?

The Education Department likes using Mihaly Csikszentmihalyi’s definitions of “big-C” and “small-c” creativity (see his book *Creativity: Flow and the Psychology of Discovery and Invention*; Harper Perennial, 1997). We use his definition of “big-C” to describe the creativity of master artists featured in our galleries. “Small-c” creativity is everybody’s day-to-day creativity—rearranging furniture, making a birthday card for a friend, trying a new spice in a recipe. We think that “small-c” creativity can be inspired by viewing “big-C” creativity in an art museum. Patty Williams explains, “One thing that had become increasingly important to all of us in the Education Department—those in family and adult programs as well as in the school area—was this issue of creativity. We wanted to learn how to draw it out of visitors, how to capitalize on aspects of it in our collection, how to be an institution known for high-quality collections and for exciting aspects of human creativity. Starting around 2002 we had already begun to install interactive spaces in the galleries that tempted adults and families to try their own hand a “small-c” creativity tasks, such as creating a souvenir postcard inspired by John Singer Sargent’s paintings of his Italian travels or making posters inspired by objects in a design exhibition. In summer camps we began to feature experiences in which kids created their own chairs using many techniques that real designers have used. Adult studio classes specialized in helping somewhat intimidated adults to find their creative capacity in painting. We studied the working process of Charles and Ray Eames,
interviewed local artists about their creative processes (and featured video of those interviews in the galleries), and we began to read what experts had to say about creativity—doing it, learning it, making lives a bit richer through it. In addition to being drawn to what Csikszentmihalyi had to say about creativity, we also were very influenced by Howard Gardner’s writings.” For more information on resources we used when exploring creativity, please see our Resources page, tab Creativity, found at http://creativity.denverartmuseum.org/resources/creativity/.

For our online teacher resource, we began with the idea of a gallery of artworks from our collections, but we lacked an overarching theme to direct our content and approach. We liked the virtual gallery of images on the Whitney Museum of American Art’s teacher web resource, Learning@Whitney (found at http://www.whitney.org/). Then, at a crucial point in the development of the project, Juli Kramer, a doctoral candidate at the Morgridge College of Education, stepped in. We initially asked Kramer to help us write lesson plans, but she did much more than that. Kramer, whose dissertation focuses on the impact of creativity and caring in the visual arts environment on student holistic development and positive self-concept development, helped us explore the multiple ways creativity can be used in the classroom. “When teachers are creative and establish an environment that’s caring and nurtures student creativity, students flourish as people,” Kramer says. “There’s a definite link between being human and creating. We can be our best selves when we are in environments that let us really explore and discover who we are.” We had several discussions with Kramer about her passion for teaching and creativity and invited her to lead an informal workshop on creativity and education for the education staff.

For some time the department has been exploring questions such as: What does it mean to have our collections inspire the general public? How can personal creativity enhance what you’re looking at? We’ve talked about the museum being a celebration of artists’ creativity.

Director of Education Melora McDermott-Lewis adds, “For some time the department has been exploring questions such as: What does it mean to have our collections inspire the general public? How can personal creativity enhance what you’re looking at? We’ve talked about the museum being a celebration of artists’ creativity.

One of John Singer Sargent’s paintings of his Italian travels, *The Rialto, Venice.*

A visitor’s postcard inspired by Sargent’s painting.
When we found Juli, everything just came together.”

Inspired by Kramer and the department’s overall interest in creativity, we chose the overarching theme of creativity and set our mission to inspire creative thinking in students and teachers. We recognize there is an unlimited number of directions a teacher web resource can take, and we are impressed by curriculum-based themes on other websites. However, creativity seemed to have a lot of potential, not only as the site theme but also as an area of interest for the future of several other aspects of the Education Department’s work.

As we decided on our theme and mission, we were concerned about how it might fit with ongoing school practices, especially with No Child Left Behind and its emphasis on basic math and language skills acquisition. As we dug a bit deeper and looked at 21st-century learning ideas, we realized that there is a big move afoot in American education circles, one that presses for both basic skills and creative thinking skills. (For more information on 21st-century learning, we recommend checking out http://www.21stcenturyskills.org/.) In an effort to address 21st-century learning skills as well as basic classroom skills, we decided to provide visual arts and language arts curricula components as part of the lesson plans on CR. We felt that artworks in our collections could certainly inspire new angles for visual arts learning and could also be great ways to stimulate writing and other language arts skills.

Once we committed to the creativity theme, the real work began. As Williams says, “If we had been fully aware of all we did not yet know about such a large theme we might have had second thoughts. Juli Kramer’s passion and our longstanding flirtation with creativity in family and adult programs inspired us. At this point we have learned more about creativity in the educational environment and have a better idea of what is still to be learned. We took a direction that will strengthen our entire museum education practice and one that holds much promise for what we can contribute to education in schools.”

Teachers who reviewed the site responded well to the theme of creativity. Teachers recognized the importance of art education not only to learn about art but also for its contribution to the development of critical thinking skills and creative processes. Of the teachers who reviewed the site, 75 to 80 percent indicated they learned something new about creativity from the website and are thinking about creativity in a new way.
Tip #2

Have a mission/vision and set it high

It’s easy for art museums to find the mission for online teacher resources in some aspect of sharing the collections with offsite users. While this is important, we think that there are bigger missions to use as inspiration. Think of it as making the choice to add to already existing missions in a substantive way. That’s why we chose creativity as the central theme of our website—a theme that made us take on a bigger mission.
How did you choose what objects to highlight on the site?

Many teachers who reviewed the Creativity Resource described it as a “virtual field trip,” which fell in line with our goal of making our collections available for use in the classroom. We also wanted to provide teachers with resources that represented creativity across historical periods, media, and cultures. One art teacher who reviewed the site explained, “Even though we’re art teachers…we have not seen every piece of artwork, we don’t know the history behind every single one. I am constantly learning. I have to educate myself in order to educate my students.” We hope that with our variety of artworks, teachers feel better equipped and inspired to incorporate all types of art into their lessons.

Fortunately, the DAM collections include a wide range of artworks, from ancient Egypt to contemporary Colorado, from digital media to stone, from traditional quilts to rule-breaking works by contemporary artists like Richard Patterson. We were intrigued by what we could learn about creativity by looking at the processes used to make a traditional Tibetan Buddhist sand painting, a 19th-century American friendship quilt, psychedelic music performance posters, and Monet’s *The Water Lily Pond*. The vast differences in these processes even began to raise questions about the nature of creativity, of museum collections, and of what we could experience and learn today by imitating or echoing aspects of those artmaking processes. In selecting our first 100 artworks for CR, we looked for a broad range of times, cultures, and manners of creating.
When choosing artworks from the thousands in the museum’s collection, we also asked ourselves four practical questions:

1. Which objects have been accepted as representative of the character and quality of DAM collections (i.e., what objects have been used to represent the collections in other projects and publications)?

2. What objects do we already have sound and approved information for and won’t need a lot of extra research?

3. What objects do we already have photography for or can get photographs of easily?

4. What objects do we already own image rights to or can obtain without too much extra work?

These four questions helped us narrow down which artworks to feature on the website and allowed us to focus on getting more objects online as opposed to spending lots of time on logistics.

Using existing materials

One of our criteria for choosing objects for the website was whether we had rich, object-specific research about the artwork. Beginning in 2006, the Education Department has been developing what we call Talking With Visitors (TWV) papers. These papers are usually written by master teachers, are approved by curators, and are used to train docents for tours. Talking With Visitors papers focus on one object in the collection and provide a model of the kinds of information that help visitors have a more enriched experience with a specific work of art. Master teacher Lisa Steffen describes TWV papers as resources that “pull back the curtain a little bit on the creativity behind great works of art.” In 2008, the education staff, with curatorial help, had TWV papers on about 140 objects in the collections and was adding 2 to 6 new papers each year, depending on staff time. Most TWV papers begin by noting several telling key visual details of a work—subject matter, technique, or formal qualities. Master teacher Sonnet Hanson explains, “Something that was constantly in my head when writing Talking With Visitors papers was, ‘If a docent repeats this information, will it enrich someone’s immediate experience with this work of art? Or is it peripheral to that experience?’ If it won’t enrich an experience, it’s still important info, but it belongs in some other document.” TWVs then move on to cultural context and, wherever possible, include quotes from the artist or specifics about his/her working process. They are, in form and content, models for taking visitors to an artwork, helping them to notice things that they might initially miss, and then sharing information related to the creating of the artwork. In this they are based on some of our key findings over the years from visitor research about what kind of information helps makes engagement with an artwork more meaningful for visitors. For example, many visitors find it meaningful to “get inside the artist’s creative process.” (To learn more about our visitor research and about what makes for a meaningful visitor experience, please see the Denver Art Museum Interpretive Project report found at http://www.denverartmuseum.org/discover_the_dam/museum_resources.)
Focusing on object-specific information has been a longstanding practice for creating gallery interpretive materials and docent training materials for tours at the DAM. Our past visitor research suggested that a common pattern for visitors was to browse galleries until an artwork caught their attention. At that point, they wanted more information about that specific object. This led us to invest more in object-specific extended labels rather than in general panels about, for example, impressionist style. Patty Williams suggests, “Isn’t it more natural for the browsing visitors to find it more meaningful to go from being interested in an artwork to information specifically about that object, then back to the object of interest again? Rather than go from broad generalizations about a group of works and then find ways to apply those generalizations to the specific object at hand?” In looking for object-specific, already approved, accessible information about artworks in our collections, we able to draw on our gallery labels as well as TWV papers.

Photography
From our exploration of other art museums that have developed teacher web resources, we learned that the number-one thing teachers want in an art museum online resource is images to use in the classroom. One set of criteria we used when filtering potential objects was whether or not we already had high-quality images of the objects and, if not, how difficult it would be to obtain them. Images in the lesson plan PDFs are high resolution so that teachers are able to print out a high-quality reproduction (TIFF files at 300 dpi/11 inches at the longest side). Images on the website are low resolution but at a very large dimension to enable teachers to zoom in and view small details (JPEG files at 72 dpi/20 inches at the longest side).

Our photography department was critical to our assessment of available images. Using grant funds, we were fortunate to be able to contract photographer Christina Jackson, who had worked with the DAM Photography Department on previous projects. Jackson already knew how photography and image rights worked at the museum and was a welcome addition. Having a Photography Department staff member on contract meant that Jackson could easily dedicate time specifically to CR. The normal process for securing staff time for a project like ours would have been to place our photography requests alongside all other requests from the whole museum. The Photography Department staff would then do its best to sort out priorities among all those requests and let those priorities direct timing of work. Because we hired Jackson on contract, she was able to devote her time to CR and either find or take high-quality images quickly and efficiently according to our time requirements. “If we needed additional photography or

Master Teacher Lisa Steffen describes Talking With Visitors papers as resources that “pull back the curtain a little bit on the creativity behind great works of art.”
close-up details, we’d give Jackson a list of what we wanted, and she would take the photos for us right away,” says Jocelyn Howell, CR Project Associate.

The first thing Howell did for the beta phase of 25 objects was give Jackson a list of all the objects we were featuring on the website. Jackson compiled all of the photography currently available for those objects and placed everything in a folder on our shared network drive in both JPEG and TIFF format. “I went through all of the images and checked to make sure they suited our purposes—they were taken from the correct angle, were high-quality enough so teacher could zoom in and see key details, were not blurry,” Howell explains. “Then I went through and made a list of the details we wanted. If Christina could crop the detail from a TIFF, she would. If not, she would take a new photo.”

For most objects, we only needed one overall high-quality image. From that one image, we were able to crop details. The number of details varied depending on the object and what areas of the artwork we wanted to point out. “On one end of the spectrum is the Gene Davis painting, for which we included zero details,” Howell says. “There wasn’t much to zoom in on in his painting, so we pointed out details such as rhythm, which didn’t require a detail image. On the other end of the spectrum is the African drum, for which we included a ton of details.”

Some reasons why we often needed additional photography:
• When the object was very large, the original photo had to be taken from a certain distance. When zooming in on the details onscreen, the image became pixilated.
• For sculptures, the details we wanted were sometimes on the side or back of the object.
• Some older photos were taken in black and white and in a different format (shot on film instead of digitally). In some cases Jackson transferred negatives and slides to a digital format.
• The photo was not of high enough resolution to be able to crop the details we wanted.

For the second round of 75 objects, the selection process was more complicated because we were working with significantly more objects. To help us narrow down the list of artworks we would feature on the site, we created a spreadsheet that listed our photography wants, and Jackson filled in information and rated objects on a scale of one to three (one meaning the image would be easy to obtain, three meaning difficult). For example, an object with a rating of three might be very large and the difficult task would be moving it to the photo studio. We took Jackson’s ratings into account when selecting what objects to include on the final list. Once the list was narrowed down, we began looking for details we might want. “I went through all of the Talking With Visitors papers to try and get an idea of the details we would include,” Howell explains. “Once I had compiled a list of these, I went through the photos we had to see whether the details could be cropped from the TIFF image Christina had provided us with or if we would need new images.”
Using grant funds, we were also able to provide the Photography Department with a larger turntable and updated QuickTime Virtual Reality software for creating 360-degree photographs, known as QTVRs. To create a QTVR, an object is placed on a turntable and hundreds of photographs are taken by a stationary camera as the object rotates. Those images are then fused together to create a single image that users can open using QuickTime software and rotate with their mouse to see all sides of the object.

Thanks to the grant-funded large turntable, the Photography Department can create QTVRs of larger objects in the collections.

**Image rights**

Because we were reproducing images on the website, we needed to choose objects that we either already owned rights to or objects that we could obtain rights to fairly easily. When gathering image rights during the beta phase of the website, Jocelyn Howell worked mainly with Becky Ceravolo in the Image Rights Department. Howell explains, “At the very beginning of the project, before making a final selection for the 25 beta phase objects, Patty Williams gave the Image Rights Department a list of objects that we wanted to include on the website. She asked them to look it over and let us know which objects we already had rights to, which would be easy to secure rights for, and which objects might pose a problem. We also told Becky the resolution that we wanted as well as how the images would be used.” Out of the original 25 beta phase objects, we needed to obtain rights for five objects. Ceravolo was able to secure rights for four of them. The fifth artwork was eliminated because Artists Rights Society does not allow images at the resolution we wanted on a website that is not password protected, and we found a replacement object.

Very early on in the second phase of the project, we gave staff in the Image Rights Department
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A list of the next round of objects we wanted to include in the site, and they created a color-coded spreadsheet that displayed which artworks we already had rights to and, if we didn’t have rights, what kind of image rights we would need (i.e., license agreement from the artist, curatorial approval, etc.).

The modern and contemporary collection posed the most difficulties because the artworks were made recently, all of the artists are known, and each artist has their own type of licensing agreement. “For living artists, we needed a signed agreement from them,” says Howell. “Some rights were owned by an artist’s estate or by an artists’ rights organization. The only objects that we wanted to include and did not secure rights for were pieces by Richard Serra and Antony Gormley.” Artists Rights Society handled rights for Richard Serra, and they required a fee for a limited display of five years, so we would have to go through the process of renewing rights every five years. Because this project was grant funded, we knew we wouldn’t have a full-time staff member working on the website after December 2009. It would have been difficult to keep track of when objects needed to be removed from the site or when we needed to make another payment. We tried to choose objects that could remain on the site for an indefinite period of time. In light of this, we decided not to include the Serra piece on the Creativity Resource website. We also did not include the Gormley sculpture for similar reasons.

Working with living artists to secure image rights is an unusual process that differs with each artwork. For example, when securing images rights for a psychedelic poster by Wes Wilson, project manager Ellen Spangler was able to e-mail the artist directly and personally ask for permission. Rights to Maria and Julian Martinez’s ceramics were granted by relatives. Rights to Jaune Quick-to-See Smith’s painting were granted after corresponding via e-mail with the artist and explaining the project. While Quick-to-See Smith did not sign the DAM’s image rights form, she agreed to participate in the project and provided her own licensing agreement.

Staff in the Image Rights Department created a color-coded spreadsheet that displayed which artworks we already had rights to and, if we didn’t have rights, what kind of image rights we would need.

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<thead>
<tr>
<th>Title</th>
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<th>Acq. #</th>
<th>Rights</th>
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<td>OK</td>
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</tr>
<tr>
<td>Four Purple Velvet Bathrobes</td>
<td>Beverly Semmes</td>
<td>1991.844</td>
<td>OK</td>
</tr>
</tbody>
</table>

Objects to be added to the Creativity Resource website

Not yet checked by Sarah Cucinella-McDaniel
Non-Exclusive License Needed (Image Rights)
Permissions Required from ARS
Use must be approved by Artist/Artist’s Representative
What kind of information did you provide about the artworks and where did you find your research?

From the beginning, we knew we wanted to provide some background information or cultural context about artworks but not overwhelm teachers with art-historical terms or concepts. We were aiming to reach visual arts teachers, but also language arts and everyday classroom teachers who may have little art backgrounds. To do this, we aimed to provide information that was 1) easy to read and share with students of all grade levels, 2) divided into sections that gave teachers useful content and helped them feel more prepared to present the artwork in a lesson, and 3) specific to each individual object.

Easy to read

One of the first decisions we made was to write content for teachers and count on them to adapt the information for various grade and reading levels. Teachers know their students’ reading levels and comprehension better than we ever will. We felt it would be more effective and efficient to provide information that teachers can then tweak for their students rather than try to write grade-appropriate content for all grade levels from preschool to high school. As we were writing information about the artworks, we devoted a lot of time to making sure the information was easy to read and easily adaptable for students. We were very intentional about using language that teachers would feel comfortable with, be drawn to, and could easily adapt for all grade levels. “When writing for a general audience, you use concrete language, you don’t use too many abstract words, you use shorter sentences,” explains Lisa Levinson, Senior Interpretive Writer. “It’s similar for teachers. You try to tie things to the concrete as much as possible so you’re not just cramming things with facts.” In this case I think the most important thing is to include information that teachers would be able to easily explain to their students.” In an effort to make information easy to read and understandable, we did not have a word limit or set vocabulary terms we omitted; we simply defined vocabulary words in the text if necessary and only included information that we felt directly relevant to the specific work of art. In the lesson plans, we also included phrases such as “Invite students to begin drawing,” and “Encourage students to think of all types of answers and assure them no answer is wrong,” which draw in teachers and help them create a nurturing and supportive environment for the creative learning process.

When writing for a general audience, you use concrete language, you don’t use too many abstract words, you use shorter sentences. It’s similar for teachers. You try to tie things to the concrete as much as possible so you’re not just cramming things with facts.

— Lisa Levinson, Senior Interpretive Writer
Tip #3

Using interpretive resources we already had

The single most time consuming part of the development of our site was gathering information about the artworks. We could have easily spent the entire grant period doing interpretive research on the 100 objects featured on CR, but if you start with written materials you already have, things will move much faster.
Dividing the information
We divided information into three sections: “Who made it?”, “What inspired it?”, and “Things to Look For.” We chose these three sections because we felt the questions Who Made It? and What Inspired It? were questions students and teachers would naturally ask about an artwork. “The Who Made It? section provides that human connection with the artist,” explains Lisa Levinson. “The What Inspired It? section comes from the desire of people to understand that creative moment that’s so mysterious and different for every artist. I think the Things to Look For section is the most important. We’re not just teaching people facts, we’re teaching them looking skills. People can relate the information to something they can actually see and make an instantaneous connection.”

The three sections of art information closely mirror the layout of the Talking With Visitor papers (discussed earlier). The Who Made It? section provides information about the artist, artists, or culture the artist(s) was from. In cases where an artist is known, we provided background information that would help teachers further understand the specific artworks on the website—pertinent education, travels, artistic processes, and whenever possible, quotations from the artists themselves. For artworks where the artist is unknown, we tried to provide information about the culture of the artist, the artistic processes that culture is known for and how they may apply to the artwork, the role of the artist in that culture, and so on. In the What Inspired It? section, we provided information that helps users better understand each individual artist’s creative process. Perhaps the artist was inspired by literature, architecture, or form. Or maybe the inspiration has a functional aspect as well, such as with quilts, American Indian masks, and Inca jugs. A high school graphic arts teacher who reviewed the site explains, “I think students need to know what inspired something, especially at the high school level. They need to know [the artist] just took this random idea and ran with it. They can do the same thing.” The Things to Look For section lists specific looking points (and provides corresponding detail images) in the artwork to demonstrate that if students and teachers look more closely, they can find and discover more about the artwork.
Writing, editing, and approving

After determining what type of information we wanted to include, the next step was actually writing. Art information was written primarily by project associate Jocelyn Howell and interns in the Education Department using the TWV papers as a starting point. When necessary, writers did additional research. After writing a draft, the document would be sent to Kim Nochi for editing, then the final drafts were submitted to the education master teachers and curatorial staff for final approval. There were often issues, usually small ones, to work out even at this final stage to make sure that information was correct and to the point. Did we get pronunciation of foreign language words correct? Were any meanings lost or twisted as we tried to simplify language? Nancy Blomberg, Curator of Native Arts, helped us dig deeper visually into one object in an effort to add information about the aesthetics of the artwork to the description of its cultural context. Ron Otsuka, Curator of Asian Art, made sure we got the tone of descriptions of Asian religious objects exactly right. “If we had full-time museum researchers and writers working on development of information about our artworks for general audiences, we could have done an even better job,” says Patty Williams. “Digging for the full and rich answer to ‘what inspired that artwork?’ is not a small task. In the case of many objects we would love to have had more time to interview the artist or to develop more extensive background information about inspiration or iconography related to visual details. But we did the best with a relatively rich resource base.”

After being approved, documents would be proofed. This flow of editing—from editor to master teacher to curator to editor—was tailored to fit our particular institution and aimed at using everyone’s time in the most efficient way possible. Once approved and edited, Jocelyn Howell would flow images and text from Word documents into InDesign documents which would be proofed again. Adobe InDesign is a desktop publishing software developed by Adobe Systems that allows users to create unique, personalized document templates, insert their own text and images, and then publish the documents as professional brochures, books, magazines, etc. Finally, the documents would be converted into web-ready PDF files and posted online.

How did you go about writing and editing the lesson plans?

Quick look at the lesson plans

Our lesson plans are divided into three grade levels: early childhood (ages 3 to 5—an age group we had not seen on many other sites), elementary (grades K to 5), and secondary (grades 6 to 12). Lesson plans are further divided into language arts and visual arts lessons, and teachers can sort through all the lessons on the website based on grade level and subject area and then print them as PDFs. Our first lesson plan writer, Juli Kramer, developed the lesson plan format that we followed consistently with each document. Each PDF printout includes a lesson with the following components:

- Overview—a short description of the lesson
- Colorado Model Content Standards—a list of the Colorado standards that the particular lesson fulfills
• Suggested length of lesson—for example, “One 30-minute lesson”; lessons are also divided by days if necessary

• Rationale—explaining what the lesson will help the students achieve and what value it brings to their long-term learning

• Objectives—list of skills the students will gain after participating in the lesson

• Materials—list of all of the materials the teacher will need to gather as well as all the materials included in the pdf printout

• Full step-by-step lesson

Attached to the pdf of the lesson plan is an “About the Art” sheet (comprised of the three categories of art information—Who Made It? What Inspired It? and Things to Look For) as well as a full-page color copy of the artwork with credit line so teachers can make copies for students.

One defining characteristic of many of our lesson plans are the creative warm-up activities. Lesson plan writer Juli Kramer believes warm-up activities are essential. “They’re kind of like a palate cleanser. When kids come in [to class], they’ve got their whole day on their shoulders, and they’re not thinking art, they’re not being creative. They’re also afraid to let loose with their own creativity if they haven’t broken down some barriers first.” The warm-up activities are meant to help students feel comfortable thinking creatively and taking risks.

We also include three to five “Quick Ideas” for each artwork. Quick Ideas are short, simple activities or discussion points about the artwork.

One teacher described Quick Ideas: “If you don’t want to use the entire lesson plan, you can click right below the art piece and it gives you … like a ‘lesson plan at a glance.’ They’re phenomenal for those last 5 to 10 minutes at the end of class.” Quick Ideas give teachers the chance to be creative and introduce students to a work of art during extra class time or possibly develop their own lesson plans based on a short prompt.

Lesson plans with a mission

As one classroom teacher who reviewed the site explains, “There are 872 gazillion websites that can tell you how to make a crafty penguin, but I’m looking for something that would provide a little richer lesson than the typical K to 1st grade art lesson.” Rich, innovative lesson plans that fully integrated artworks and were inspired by one specific object is exactly what we wanted. We didn’t want to use the artwork simply as a springboard for a typical art project. We thought, for example, rather than using a still-life painting depicting fish simply as a springboard for making fish prints, let’s invite the students to also explore how the artist chose to include other objects in his still life that mimicked the lines and sheen of the fish.

We wanted our lessons to encourage students to explore, to figure out the dozens of ways a problem could be solved, and to learn that sometimes there isn’t always a right or wrong way of doing something.
Each PDF printout of a lesson plan includes a full-color copy of the artwork as well as an “About the Art” sheet, which provides teachers with background information.

Knows Her Medicine, 1981, Kevin Red Star.
William Sr. and Dorothy Harmsen Collection.
We wanted our lessons to encourage students to explore, to figure out the dozens of ways a problem could be solved, and to learn that sometimes there isn’t always a right or wrong way of doing something. We wanted to capture those ideas in our lesson plans. As a conduit for these skills, art teaches students the value in creative decisions, taking risks, and thinking for themselves. Lesson plan writer Juli Kramer believes, “With the lessons that are the strongest, there’s no one right answer or one final product. Ideally, if you walk into a classroom with 30 kids, you will see 30 completely different pieces. The ultimate goal is that they are really divergent in the final product, that they all go through the process in their own way, and that they come out in the end with something truly unique to themselves.”

Fundamental for all teachers is the ability to adapt their lessons to meet both state and national standards. We addressed this need by including in each lesson plan a list of the Colorado Model Content Standards the lesson addressed. We had decided to include the entire sentence describing the standard, rather than using a referral code for the Colorado standards. This way, teachers from other states could see more clearly how the learning standard we were addressing in Colorado might address similar standards in their own areas. One teacher who reviewed the website expressed, “It’s a shame, but art is still an area that has to be justified.” Another added, “It’s vital to be sure that you are addressing standards in every lesson. Not only is it vital to the students you are teaching, but when you are interacting with administration, parents, and the community.”

We also wanted to help teachers advocate for arts education and integrated arts education in their schools. In the CR Resources section, we included a page titled “Advocacy” where teachers can find a list of organizations that promote art education. Here we added several resources, including YouTube videos where leaders in the arts made compelling cases for teaching creativity, 21st-century learning, and arts education.

Lesson plan writers
We had seen other websites where wonderful lesson plans had been developed by museum staff, teacher advisory groups, or even undergraduate education students. We explored these possibilities but finally, at the recommendation of Bruce Uhrmacher, Professor of Education in Curriculum and Instruction at the Morgridge College of Education, we decided to pay an honorarium to extremely talented and experienced teachers who eventually wrote our lesson plans. We came to believe that a lesson written by an experienced and passionate teacher who was also in the know of the most current thinking in education, creativity, and 21st-century learning might give us lesson plans of greatest richness and usefulness in the classroom.

We eventually had five teachers write lesson plans for this project. Lesson plan writer Hilary Burg, a doctoral candidate at the Morgridge College of Education, explains, “Teaching is, in and of itself, a creative act. You’ve constantly got be looking at where your students are, who they are, where you want them to go, and how you’re going to get them there.” Juli Kramer,
another doctoral candidate at Morgridge College of Education and a big inspiration behind CR, believes that “People always talk about holistic education, but sometimes they don’t know how to do it. You can’t say to kids, ‘I’m going to teach you holistically.’ So you have to think about what process you go through, what are the steps and warm-ups that really model using the whole body, mind, and community to help students be creative.”

The first step in writing lesson plans was having a walkthrough with the Education Department master teachers in the galleries. These walkthroughs gave master teachers, who are each assigned to a specific collection, a chance to talk with the lesson plan writers about specific objects in the collections and to share their experiences teaching with those objects. “Meeting with the master teachers was so amazing,” says Kramer. “That was a whole creative thing in and of itself. Seeing the artworks through their eyes, having lots of creative perception from other people, it was definitely essential to my lesson planning. I do not think I would’ve seen the artwork as I needed to see it if it were not for those meetings. Master teachers have a passion for the art and teaching the art, and I really tried to honor and capture that passion in my lessons.”

When developing her unique lesson plans, Kramer began by writing ambitious rationales. “Because I’ve worked with pre-K through adults for so long, I know they’re much more capable of things than we give them credit for,” she says. “I wrote the lessons for teachers who really believe in themselves, that they can let their kids go crazy and get messy, and who really believe their kids could do it. By writing a rationale first, you have a higher purpose, something more challenging, and you then have to write a lesson that will achieve those goals.” Burg adds that when writing lesson plans, she didn’t hesitate to ask for advice when needed. “Because my experience teaching is with middle school students,” she explains, “I would call up a couple early childhood teachers I know just to touch base with them and see what they might do with their students.”

After the lesson plans were submitted, they went through an editing process with the master teachers. Master teachers were a crucial step in the editing process. Because master teachers are so familiar with their collections, they were instrumental in keeping us on track with our goal of creating unique lesson plans based on one specific object rather than falling into the trap of using an artwork as simply a springboard for a lesson.

Designing the lesson plan graphic layout
The pdf template for the lesson plans was designed by our Communications Department. Communications Manager Kristy Bassuener explains, “The creative manager worked with the intern that was hired primarily for this project. They crafted a template that would work in all cases and still have a little flexibility to accommodate specific content. It was important to maintain the Creativity Resource brand as well as the DAM brand. This includes the Creativity Resource logo and the DAM identity fonts and colors. Consistency of elements across all PDFs was very important.”
Teachers’ thoughts on the lesson plans
Teachers who reviewed the site and used our lesson plans in their classrooms were pleased with how their students responded. A classroom teacher commented, “This was the kind of lesson that if my principal walked in, I would love him to see. He would see kids doing their own work, then walking around and sharing with others.” A reading intervention specialist explained how her kids were “engaged, they were talking. They were more excited after the lesson to write the perfect sentence about the artwork.” One teacher said, “Most of [the students] had never seen anything like this. It was very new. Just looking at [the artwork projected] on the screen, it was very vibrant. They really enjoyed looking at it, and I think that is why they really wanted to give [the lesson] a try.” Another believed the students were “really engaged in the art piece because they don’t get a lot of art in their other classes. Being able to draw, being able to express themselves—then they get really excited.”

We also found teachers and students more excited about artworks because they knew they could them in Denver. One teacher explained, “Knowing it was in the DAM and that they [students] could see it there, made it more encouraging for them. It really energizes them…gives that extra oomph.” Another teacher said that showcasing Colorado artists and Denver connections in her classroom “makes it immediately relevant for the kids.”

Teachers from a variety of subject areas found something helpful on the website. Elementary school art teachers were particularly delighted with the way the lesson plans easily incorporated basic principles of design and helped their young learners in “discovering some of the elements of design, principles of what starts as a foundation for them to learn art. They’re able to break down formal lines, colors, depth, scale, and all that’s presented in the lessons.” An elementary technology specialist teacher, whose subject area was not one we focused on specifically, explains, “I can do something in here that will support what [other teachers] are doing in their classrooms.”

Along with lesson plans that cover a broad range of subject areas, another thing teachers liked about the website is how it can save them time. As one teacher explains, sometimes teachers need a lesson that “has all the pieces you need to teach it and doesn’t require a lot of prep time.” A technology specialist also adds, “As a teacher, especially an elementary school teacher, we don’t have the time, unfortunately, to get out there and do lots of research.” We wanted to provide teachers with information and lesson plans that were easy to prepare for, required relatively few materials, had all the components in one printout, and included expert information teachers could easily adapt and share with their students. By including concise information about the art object, a short materials list, and the Colorado Model Content Standards, we feel we accomplished this goal, and we appreciate one teacher’s description of the website as “a godsend. Especially for brand-new teachers. First and second year teachers that are so overwhelmed with standards and lockstep curriculum, they’re not going to know where to go.”
We were lucky to find talented teachers and graduate students to write our lesson plans. Along with their talents and expertise as educators, we found that our lesson plan writers needed to be:

1. Passionate about teaching and about our theme of creativity
2. Committed to integrating their ideas with those of staff in the Education Department who had experience working with collection objects
3. Up-to-date on current thinking in the educational fields as it related to our site

As we began working with lesson plan writers, we contracted them to write one sample set of lesson plans. Based on the sample lesson plans, we needed to be very careful in deciding whether to have them take on more lesson plan work.
hen reflecting on the lesson plan writing process, Hilary Burg believes that “It’s really tempting to divide the lesson plans up and have one person write all the lessons for one grade level. But I feel having one person write lessons for all three grade levels was the best. There was such interchange between the lessons it would be difficult to convey those ideas to three different people.” Teachers who reviewed the website appreciated the interchange between the lessons. One special education teacher felt she could explore and compare the three lessons and easily pick and choose elements that would fit what her students could handle.

Melora McDermott-Lewis, Director of Education, hopes that the lesson plans help teachers feel comfortable and confident incorporating artworks into their curriculums. “There was a really wonderful sentence in one of the evaluations where one of the teachers talked about the website being almost a substitute or even better than consulting with her friend the art teacher,” she explains. “To me, that encapsulated so much of how I hope teachers perceive the website. That it’s as friendly as your friend the art teacher, it’s as accessible, you feel comfortable talking to her, she’s got expertise, and you trust that she knows what it’s like to be in the classroom. If that’s what teachers leave with, that sort of comfort and feeling of expertise, saying they can use it as a resource, I’d be ecstatic.”

Take it and run!

Ultimately, the lesson plans on CR are a beginning point. “They’re an inspiration for teachers to go beyond,” says Juli Kramer. Not only do they provide teachers with unique and fun lessons for their classrooms, but we also hope they inspire teachers to add their own creative ideas, think about other lessons and how they can make them more creative, and maybe even alter their teaching style a little to include more creative learning lessons in all subject areas. Project Manager Ellen Spangler hopes the lesson plans on CR “break down the huge concepts of creative thinking and critical thinking, and show teachers how to foster creativity through very simple activities that are easy to do in the classroom and don’t require a lot of materials.”

Even though we developed lesson plans for artworks on the website, the creativity doesn't stop there! One teacher developed her own unique art project based on Kevin Red Star’s painting Knows Her Medicine. These are a few examples of what her students created.
Some advice for working with lesson plan writers from Hilary Burg and Juli Kramer.

- Walk through the galleries together and brainstorm with a lot of people. “Let the process be very dynamic and open, and just see what evolves from the museum’s community,” says Kramer. “Honor the museum staff’s passion and love for their collections and bring that into the process.”

- Learn your lesson plan writer’s working styles and be flexible and encouraging. “There was never an idea that was shot down,” says Burg. “There was a lot of freedom to brainstorm and throw things out there.”

- Have the writers keep an idea bank. “I kept all the ideas I had,” says Burg. “If something didn’t work for a particular object it might work for something else or be a great Quick Idea.”

- Give writers the freedom to revise their lessons down the road in case something brilliant pops up later.

- Make sure writers have access to the objects they are writing about. Burg explains, “Ellen offered us free passes to come back to the museum and look at the objects again if we wanted. Having that opportunity was great.”

- Keep lesson plan writers informed on what other writers are doing to avoid repeating activities.

How did you keep track of hundreds of documents?

As the writing process progressed, it soon became clear that with the large number of objects, in addition to the growing number of employees working on the project, that the possibility for either losing a document or forgetting a step in the writing/editing process was very likely. In order to prevent this from happening, we created a workflow chart, a series of folders on the computer network, and a content tracking sheet.

Workflow chart

The workflow chart, a color-coordinated flowchart, maps out the process of turning ideas and raw information into web-ready documents. When developing this flowchart, we had to determine what made the most sense for our institution and what kind of time people had to devote to the project. We knew we wanted art information to be approved by both master teachers and curators. We also knew we wanted to include master teachers in the lesson plan process. All of those steps are included in our tailored workflow chart.
The workflow chart mapped out the process of turning ideas and raw information into web-ready documents. It also displays the initials of the staff member in charge of each step.
Series of electronic folders
We created a series of folders on the museum’s shared hard drive and every staff member who was connected to the DAM network could access the files. This was incredibly helpful throughout the process because not everybody was working in the same office area. The folders were organized according to the steps outlined in the workflow chart.

Content tracking sheet
The content tracking sheet, an Excel document that listed every artwork and every stage of writing and editing, was one of the most important documents we used during the project. “During the beta phase, we developed resources for 25 objects. During the second phase, we developed resources for 75 objects, a much bigger group,” explains Jocelyn Howell. “The tracking sheet helped us see everything at one time. We knew what we were missing, what stage everything was in, and what we areas we should work on.”

Ellen Spangler adds, “Agreeing on a uniform way of tagging things minimized the need for asking a lot of questions like, Where is this? Has this document been edited? Using color and a short label, we were able to see exactly what needed to be done with every object.”
Listening to your users: choosing when and how

When looking at research based on teacher websites, we found much had been learned about teachers’ general use of the Internet and computers. We found less research on how teachers use art museum resources. Given that the user research was what we might call modest, we needed to decide what type of information was most important to us—what piece of research was missing that we needed to know. The beta phase of the website provided us with an optimal time frame to conduct an evaluation, and our budget and professional interests led us to conduct an online survey in order to collect hard data. We were most interested in conducting a qualitative study by a professional evaluator using a small sample set of teachers. In the past we had found that the richest research material came from qualitative information. This type of information, we hoped, would be inspiring and stimulate deeper thinking about what our site might be for its users.
How did you hear from your users?

After the beta phase with 25 artworks was launched, we conducted an evaluation of the site. We chose this time to evaluate the site because it allowed teachers the chance to test out the actual website and resources. It also gave us time to refine the development process without spending too much time creating resources teachers might not find helpful.

The Creativity Resource team enlisted the help of Quality Evaluation Designs, an independent consulting firm, to conduct the evaluation. Beginning in January 2009, teachers who visited the website were asked to complete an online survey about the resource. A group of teachers was also selected from the pool of survey respondents for in-depth interviews. The evaluation resulted in very positive comments from teachers about the design of the site, its ease of use, and content. It also suggested things we might do to make the site better. The full evaluation can be found in appendix B.

Teacher responses to the website

Creating a complicated website that is difficult to use is “the single more serious mistake you can make,” says Patty Williams. Teachers who participated in the evaluation were positive about the site, saying it was “extremely easy to navigate,” “teacher friendly,” and “visually easy to get around on.” One teacher mentioned appreciating the range of artworks on the site, saying that teachers “don’t always know where to look for things, you don’t have time, but it’s all right there, it’s nice to have the variety.” Being able to quickly and easily fit a lesson from CR into existing curricular efforts was a true plus for teachers reviewing the site. A very experienced teacher noted, “It looked like something that I could walk right in the next day and use, and that’s what we’re always looking for, something that can fit right into our curriculum, that’s available, and in a heartbeat you can get on this, pull it up, and there it is.”

Teachers also felt the content was helpful, easy to understand, and easily adaptable for all grade levels. It seemed a consensus among teachers that the website struck an appropriate balance between thoroughness of information, so the teacher does not have to search for additional resources, and the limits on the amount of information, so the teacher does not feel overwhelmed by content. We had responses from teachers saying that the website “does an excellent job of content-writing” and that the materials presented are “comprehensive.” A number of teachers specifically mentioned the What Inspired It? section in their responses. With the little ones, it prompted one teacher to “talk about making our own art just like Gene Davis did and to ask, when the children hit a stumbling block, about how to make straight lines, about what Gene Davis would have done.”

That got the students thinking and the teacher explaining, “The artist did it with paint, what would it be like doing it with paint, what if we did it with tape, you know paint it, pull the tape off—so they were actually processing what it would have been like to have actually done the painting.” The teacher continued, saying she felt that allowing the students to work through the same artistic process is “a really good way for kids to feel like they’re an artist.” Not only did the art information help the students understand an artist and artwork better, it also helped teachers feel more confident. A technology specialist teacher expressed that the website “made me feel like I was a little smarter about art.” In order for teachers to start incorporating more art into their classrooms, it is essential that they feel confident and comfortable with the information.

The reviewing teachers found a good fit with the lesson plans on the website and the levels at which their students learn. A technology specialist who notes that it’s “hard to find things that will keep [kindergarten kids’] interest” was “pleased that the website had sections devoted to younger children.” A kindergarten teacher found resources “broad enough to be used at every grade level, most teachers can exercise their own creativity to make it fit for their particular class and grade level.”

Teachers were extraordinarily pleased with the inclusion of the Colorado Model Content Standards in the lesson plans. A reading intervention specialist expresses, “I love the fact that they have the standards. Because when I’m writing my lesson plans… it tells you the standards you’re covering, so it’s very easy to align art pieces with that, which works out well.” Teachers in various grade levels and districts in Colorado, as well as one International Baccalaureate teacher, also found the standards easily adaptable for their own district and school standards.

We also found that teachers who completed the survey recognized the importance of arts education “to developing critical thinking and problem-solving skills.” A novice art teacher encourages focus on “using art not necessarily as a creative process, but also a learning process on different levels.” One alternative middle school teacher observed that “alternative or nontraditional learners tend to be more creative, but don’t know how to channel it. They may never realize they have a visual skill that has never been recognized.” In her opinion, art is “a way of reaching kids who are not successful academically, give them a place to be successful.”

Changes we made based on a teacher evaluation

“We got glowing remarks from the evaluation,” says Ellen Spangler. “But we also got some constructive feedback and ended up changing some things as a result of the evaluation.” One of the changes made to the site after the evaluation was scratching a glossary of art terms, a project that we had unfortunately already devoted considerable time to. “Not a single person mentioned wanting to have a glossary, and we were working our butts off creating a glossary because so many other museums had one, and we thought we needed one too,” says Patty Williams. Since no teacher mentioned the need for a glossary, this suggested that the content we had written
for the website was easy to understand, provided relevant information, and was teacher-friendly.

Another change we made was adding a way for teachers to provide input—teaching tips, examples of student artwork, and comments—about the site. Teachers can now submit a ‘Bright Idea’ on the website and attach photos to share. We didn’t necessarily want to create a social networking outlet for teachers to blog, just a way for teachers to share how they used CR in their classrooms and provide ideas other teachers might find useful. We based this decision in part on our understanding that other art museum teacher sites had found that teacher blogs were underutilized compared to the image, lesson plan, and information components.

After hearing from teachers in the evaluation, we also:

- Increased the size of various buttons (such as the sort feature tabs) so teachers could find and see their options more easily
- Added more video content, such as clips of artists interviews
- Included in the Resources section websites that addresses grading rubrics for teachers who wanted a standard by which to evaluate their students

Who designed the website?

Slice of Lime, a web company based out of Boulder, Colorado, designed CR. They were selected by Bruce Wyman, Director of Technology, and Andrea Kalivas-Fulton, Director of Communications. Slice of Lime was already managing the museum’s website, and we wanted some level of consistency between that site and CR site. After meeting with Kevin Menzie, Founder and CEO of Slice of Lime, and Jeff Rodanski, Partner and Creative Director, there was no question we wanted to work with them. “Slice of Lime was a no-brainer,” says Ellen Spangler. “Our first meeting was with two guys who are very energetic and creative and fun. They were down to earth, flexible about working within our budget, and explained things in terms that we, who have little experience with web programming, could easily understand. They had also created websites for the Boulder Museum of Contemporary Art and various educational websites, so we knew they had worked successfully with both museums and educators, which was a huge plus."

Goal #1: Easy to use

Our main audience was teachers, and our main goal was ease of use. We recognize teachers have varying degrees of Internet savvy, and we wanted to help teachers feel comfortable and confident navigating the site. Kevin Menzie, whose mom teaches fifth grade, understood the balance we needed to achieve. “My mom works with a mix of teachers her age and brand-new teachers who are familiar with social networking sites,” explains Menzie. “The range of how accustomed people are to browsing the web is pretty wide with teachers.” In order to reach teachers of all technical abilities, Slice of Lime created a navigation scheme that was very straightforward, communicated visually what the site was about, and didn’t offer an overwhelming amount of options. With one
glance at the homepage, teachers will recognize the site is for them; we used photos of children interacting with art projects, quotations from teachers who reviewed the site, and phrases teachers would be drawn to such as “Find lesson plans and ideas.”

A lot of Slice of Lime’s design choices reflected our goal of ease of use. For example, to see lesson plans on the site, a user only needs to click once. Once on the lesson plan page, they can easily sort lessons based on grade level and subject area. We also included a virtual gallery of images where teachers can quickly scan all of the artworks on the site in full color. Patty Williams explains, “On a computer screen, you can scroll through artworks even better than you can when you come to a museum and have to walk a distance or go up an elevator. Side-by-side you see things like a Tibetan sand painting and a quilt made by an upper-class lady in New England.” With a quick glance, users can scan the artworks or sort them by period, culture, region, and media.
When a user clicks on an image in the virtual gallery, they are taken to an object page that contains all the art information and lesson plans for that particular artwork. The object page also allows users to zoom in or out off an artwork, pan over the image, and view the object full screen. This design allows teachers to browse information based on what’s most important to them—either images or lesson plans. Once they choose an image or lesson plan, they are given all the information they need for a successful lesson. As one teacher who reviewed the site expresses, “you can scroll through the images, choose a lesson plan, choose a grade level, and how easy is that. It’s so accessible. It’s almost like you’re cheating a little bit.”

Slice of Lime was committed to not only making navigation throughout the website easy but also designing the website with the most commonly used technology. Ellen Spangler explains, “We didn’t want teachers to need to have complicated software to use the website. We did everything in PDFs because most people have Adobe. We posted videos from YouTube, which some school districts block, but at least everybody can view those videos at home instead of having to download the right video player.” Compiling everything—a lesson plan, information about that work of art, and a full-page, color image of the artwork with a title and credit line that can be photocopied—in one printable pdf makes it easier for teachers to feel prepared and confident using the lessons plans. In one document, they will have everything they need (minus materials in the materials list) to teach a successful lesson.
Goal #2: Easy to maintain

In addition to being easy for teachers to use, we also wanted the website to be easy for us to maintain. Nobody in the Education Department has experience with web programming, so Slice of Lime set up CR using a content management system. The content management system they used is a customized version of WordPress. Inputting information in a content management system like WordPress is like filling out a registration form: all of the boxes are clearly marked with subject headings and information can be inserted directly where it’s supposed to go without messing with web coding. Menzie believes there are a lot of advantages to using a content management system. “It gives the client the power to change content on the pages without needing to look at the code itself,” he says. “We’d rather our client come back to us for help with big functional changes instead of small things. We feel, and I think the clients feel the same way, that they would prefer not to pay our hourly rates to have us change something small like the title of a page. They’d rather be able to go in and change it themselves.”

Below: WordPress allows you to edit content as you’re inputting information.

Below right: DAM homepage

Goal #3: Connected to the main museum site

We were interested in making CR a “sister site” rather than fully integrating it into the current DAM site. This allowed us to use a distinct voice when speaking to teachers through CR. Kristy Bassuener of the DAM’s Communication Department believes that “One strength in having a slightly different brand for the Creativity Resource website is that it can speak directly to its distinct target audience of teachers.” However, we also found it important to provide some key parallels between the CR website and the DAM site, and worked with our Communications Department to plan such connections. With their design, Slice of Lime pulled elements from the main website into Creativity Resource. “Creativity Resource has design features of the DAM website, like the top grey bar that slants, the color palette, and the icons,” explains Rodanski. “It has a similar feel, it looks like it belongs in the DAM family.” While Creativity Resource reflects the DAM website, as a “sister site,” it also has its own character. We used pictures of children interacting with art projects for the homepage, and used language teachers would be familiar with to communicate that this is a website for teachers.
Working with web designers

“I think a good client is somebody who is engaged in the project and is also participating,” says Menzie. When working with a web designer on a new website, we found the most important things were to be quick in getting materials to the designers, specific and clear about our needs and wants, flexible, and all-around involved. Project manager Ellen Spangler suggests, “Get some sample content to the designers as soon as possible so you can test it out and really see the results, see what it looks like. Try to provide them with a cross-section of images and text that will help you see what the end user experience will be like and so you understand the areas where you could be communicating design requirements better.”

“It’s really fascinating, the level of detail you need to communicate to a designer when planning a website,” Spangler explains. “I think it’s easy to think, ‘Oh we can change that later.’ But more work on the front end of the planning stages will really pay off in the long run, because if you change your mind about something that means more hours for the web design company and you spend more money. Having those hard discussions where you spend hours talking about little details, such as deciding what to call the different sections of the website and what categories teachers can sort artworks by, is really important. I found it really useful to look at other websites to help refine what we wanted. When talking about various design elements, I showed Slice of Lime examples of how other museums had tackled the issues. Even though those sites weren’t necessarily examples of exactly what we wanted, they provided us with a starting point, and we could say, ‘We’d like a little bit of this, but not that.’”

Another key suggestion when working with a web designer is to be flexible. Menzie explains, “Ellen’s an upbeat, flexible person so as we hit any sort of technical challenges she was open to hearing the alternatives, she was open to new ideas.” With no background knowledge in web programming or design, we didn’t always know what our options were, and the options we did know about weren’t always the best. Being open to hearing all the possibilities and flexible in tweaking or changing things if necessary is important. For example, we knew we wanted to include a way for teachers to respond to the website and share the artworks their students made, but we didn’t exactly know what that should look like. We presented our idea to Slice of Lime and they worked out the details of the ‘Bright Ideas’ feature. Web designers are the experts—they know what will and will not work technically, what’s appealing to an online community, and how to communicate in a web environment. Another tip is to be clear about your priorities and what the non-negotiables are. Spangler says, “If an important aspect of the site is not meeting your expectations, be sure to pause and determine exactly what it is that isn’t working so that you can work with the web designer to change course as needed.”

Get some sample content to the designers as soon as possible so you can test it out and really see the results.

-Ellen Spangler
What kind of promotion and outreach are you doing?

Of course we thought it would be wonderful if word about CR reached a tipping point by magic, but we recognized that the initial grant for CR would support getting the website up and running well, while that promotion and growth of users would be a long-term effort. We did, however, want to give it a running start.

Our communication strategy involved both the Communications Department and the Education Department. We called the Communication Department plan the “communications plan” and the Education Department plan the “teacher contact plan.” In developing the communications plan, slated to happen at the end of the grant when the full site was launched, we had to consider other communication priorities happening at the same time. For example, our director of 20 years was retiring, a new director was being appointed, and we were opening a major exhibition. Communications focused on sharing information about CR with teachers through various media. Ashley Pritchard, Communications Coordinator, bought ads in six Colorado teacher association publications that reach teachers in various counties, utilized Google Adwords to advertise CR on Google search with a list of keywords including teacher and lesson plans, placed ads on Facebook to reach an audience of more than 500,000 people in the United States who included the word teacher in their profile, and initiated Twitter messages about CR for teachers.

The Education Department’s teacher contact plan was more grassroots and began when the website went live. We targeted certain Colorado school districts and offered to visit to do introductory CR demonstrations, reached out to arts and education organizations across the state of Colorado, presented at conferences, and simply went out into the community and connected personally with educators, artists, and community organizations. We worked with community organizations such as local arts advocacy groups, statewide education committees, education classes at the Morgridge College of Education, and museum education groups. We also developed a list of targeted Colorado museums and education communities to send electronic announcements to in the final months of the grant. These included communities such as home schooling organizations, Catholic schools, University educators and students in both art/art history and education, and HeadStart teachers. We also sent announcements to the Association of Art Museum Directors.

Printed communication materials

When communicating with teachers about Creativity Resource, we wanted our printed materials to be useful and fun. The Communications Department designed two promotional materials: a postcard, which features Giuseppe Arcimboldo’s painting Summer (a show-stopping image we often call “fruit face” since it is a portrait made of summer harvest crops), and an oversize bookmark. Kristy Bassuener explains, “The bookmark and postcard format were chosen so that teachers might consider these ‘keeper’ pieces, and therefore see the message more than once—a functional
Left: Postcard—We chose this image as one that may appeal to art and non-art teachers, and may suggest to all a “creative approach” to making art.

Below: The CR bookmark

Summer, 1572, Giuseppe Arcimboldo. Funds from Helen Dill bequest, 1961.56
bookmark for their personal libraries, and a high-quality print of an intriguing collection object on the front of the postcard that could be posted on a bulletin board or shared with their students.”

We printed 20,000 bookmarks to distribute at teacher workshops and conferences, and packets of approximately 40 bookmarks are given to every teacher who brings a tour to the DAM. These teachers are asked to put copies of the bookmarks in the teacher mail drops at their schools. Education tour coordinator Marie Stanley sent the Arcimboldo postcard to over 27,000 Colorado teachers in August 2009. The postcard served as an announcement of CR and of the museum’s school tour program; it also provided web addresses for CR and for a website that features information about our school tours.

What were some challenges you encountered?

As with any project, we encountered some challenges along the way. Lisa Levinson, Senior Interpretive Writer, who was involved in the early stages of the project, says one of the first challenges was simply figuring out how this website would work in the context of the overall museum. “Figuring out how we were going to be interfacing with the Technology and Development Departments, what role the Communications Department was going to play, and interfacing with the rest of the museum, and figuring out how the website was going to relate to the museum’s website. I would say that’s a challenge,” Levinson says. When we applied for the grant to develop CR, it was mostly a project of the Education, Communications, Development, and Technology Departments. We did our best to think through demands the project might have on other departments and to consult with them in the planning stages. Inevitably, once the grant is successful it is challenging to juggle the priorities of all the staff who need to make a contribution and find ways to facilitate those contributions. Due to forbearing staff and goodwill among colleagues, we worked this all out, at some cost in time and effort.

Having enough human resources to get all the details of the work done was daunting. Interns played a critical role in the development of this website, participating in various projects such as brainstorming Quick Ideas, testing lesson plans, and researching artworks. Many of the art information sheets were written, based on TWV papers, by interns who had academic backgrounds in art history. However, we weren’t writing academic papers, we were writing for the general public.
public. Lisa Levinson explains, “Depending on intern labor is a tricky thing. Juggling people’s various abilities and skills when they’re working for free can be hard.” When training interns, we first had them read various materials that reflected the type of writing we were looking for. We then assigned a test task, either writing or researching, that allowed us to gauge their ability to write for a general audience or find relevant research materials. Then we reviewed the task with them to ensure they understood the general concept and theme of CR.

Another challenge Spangler notes: “We found it was difficult to write lessons for some objects,” she explains. “The Catlin painting is a good example.” George Catlin’s painting The Cutting Scene, Mandan O-kee-pa Ceremony depicts the O-kee-pa ceremony, the central religious activity of the Mandan Indians. During the part of the ritual depicted in this painting, wooden splints were inserted into the participant’s chest and back muscles (a procedure that, although painful, didn’t cause lasting injury). The participants were then suspended by cords that were lowered down from the top of the lodge and attached to the splints. The young men in the painting were willing participants in this sacred ceremony, which was held to ensure the community’s prosperity. “We knew right off the bat this painting wasn’t suitable for ECE and elementary students, so we didn’t focus on those grade levels. I think a more helpful set of criteria would have been, does this object have a TWV paper and does it also provide huge opportunities for rich lesson plans?” Spangler also adds that while using mostly objects with TWV papers was a great idea that allowed us to get over 100 objects online, she also thinks that “there were some missed opportunities for objects that had not yet been written about or researched for general audience interpretation.”

How do you define success?

Success with this project will be determined by the degree of use and usefulness that teachers find in Creativity Resource. From beta phase evaluations we believe we have successfully launched a useful website. After the full site was live on the web, we kicked off long-term promotion of teacher use, and early signs suggest that we have a lot of work to do as we expand the user base for CR over the next few years. As Patty Williams says, “I think I would say that we successfully completed the development of a beginning. We embarked on a big mission, one that will intrigue us for years to come, both in terms of the creativity theme and an ever expanding website.”
Where would you like to see the website go in the future?

Our hopes for the future of the website range from larger conceptual additions to technical tweaks and continued outreach. Lisa Levinson, Senior Interpretive Writer, would like to be able to sort lesson plans by theme and key words. She also adds, “It would be nice for people to know if these objects are currently on view or not.” Currently, we only have a caution with each object that it may not currently be on view.

Patty Williams says, “We don’t invent new tours very often, but I would like to develop one that somehow or other comes to grips with this idea of the different ways in which our collections represents creativity.” Our teacher evaluation suggests that ECE teachers are having a harder time using CR than other teachers. It also suggests that some teachers would like to see more social studies lesson plans. Funding sources will have a big impact on the future of CR. It may grow slowly, in starts and fits, or it may undergo substantial changes. One thing for sure, it is now an integral part of future school and teacher programs at the DAM.

Promoting growth in the number of users is high on our list for the future. A few concrete future outreach projects include:

• Gradually increasing our use of social networking to reach more teachers

• Demonstrating CR in two national forums held in Denver in 2010—The Institute for Museum and Library Services will hold its annual WebWise Conference in March. Museums and the Web will hold its national conference in April.

We also want more lesson plans in other subject areas and more artworks with resources. Lesson plan writer Juli Kramer says, “I would love to bring it into other areas of the curriculum. Teachers are really afraid to use art in other areas like science and math, but art allows students to have more divergent thinking.” Patty Williams adds, “I am very interested in looking at the cultural learning piece and adding social studies lessons. I would also really like to push the limits on this idea of the classroom teacher and language arts.” As Melora McDermott-Lewis believes, thanks to the work everybody put in from the beginning, “I feel as if we’ve got a really strong foundation. Depending where we’re headed in the future, we can add blocks. That’s part of the beauty in how it’s been built, it lets us add appropriately.”

I feel as if we’ve got a really strong foundation. Depending where we’re headed in the future, we can add blocks. That’s part of the beauty in how it’s been built, it lets us add appropriately.

—Melora McDermott-Lewis, Director of Education
Another goal is to continue encouraging use of the site through teacher workshops and to let CR inspire new kinds of teacher workshops at the DAM. “In important ways,” says Patty Williams, “this project has helped set long-term goals for school and teacher programs at the DAM and has set them distinctly higher than they were before.” We will offer the first of many ‘creativity workshops’ for teachers in March of 2010 (three months after the end of the CR grant) and will base the entire workshop on an extraordinary new artwork at the museum, an installation by Rupprecht Matthies’ called ¿Being Home?. The creative process behind many objects in our collections can inspire teachers and students, and we’ll be doing a whole new series of teacher workshops based on the stories of single artworks. Matthies’ installation captures words that are deeply meaningful to those who contributed them. Matthies began by holding workshops with refugee groups in Denver. He asked refugees questions such as: What did you leave behind? What surprised you about the United States? Matthies then turned the words into three-dimensional objects using foam, Plexiglas, wood, fabric, and Styrofoam. When we took literacy teachers into this gallery, their eyes got big, they began to smile, and they said, “We HAVE to bring our teachers to see this.”

Williams hopes that the website helps both students and teachers discover the inspiration and nourishment art can provide. “I want individual students to have their lives enriched by experiencing the works of art in the collection. I want some high school kid who thinks psychedelic posters are the coolest thing since sliced bread to benefit. I want fourth-grade Maria to look at a quilt and start thinking about how she can put together something like that for her doll. I want their brains to run, I want them to get a jolt of energy from experiencing the object, and then who knows where it goes from there.” She adds that inspiration for expression may naturally flow from the artworks in the museum collections. “If I assume that these objects come from somewhere deep in the human psyche, then there’s something so seemingly right to me about somebody writing a poem about it. It would be like experiencing a work of art is almost like a kind of nourishment that you take into your body. You don’t ingest it like you do food, but you take it in, mentally, emotionally, visually, and then who knows what comes out. I’d be thrilled if works of art helped kids express themselves.”
Thank-yous

Our most sincere and gracious thanks to Carrie and John Morgridge and the Morgridge Family Foundation for their generous funding over the past two years. With funding from the Morgridge Family Foundation, we have been able to make 100 artworks from the DAM collections accessible online, develop unique and rich lesson plans based on the artworks, reach out and build relationships with the education community throughout the state of Colorado, and provide equipment for the DAM Photography Department. Without the support, both financial and personal, of Carrie and John Morgridge, this project would not have been possible. We offer our deepest gratitude for the Morgridge’s guidance and wisdom throughout the course of this project.

We would also like to extend our warmest thanks to the Berger Collection Educational Trust for their funding, which allowed us to study the best practices among other museums that have developed online teacher resources. “I think a lot of museums have developed resources with pretty bells and whistles, and we were really lucky to take their wisdom and say, ‘OK, this is what teachers really use, this is what they want,’” explains Melora McDermott-Lewis, Director of Education. “We benefited from other museum’s experience and I’m incredibly grateful the Bergers allowed us to do that.”

We would also like to thank the professors and students from the University of Denver’s Morgridge College of Education, who offered their expertise and wisdom on curriculum and educational theory—Bruce Uhrmacher, Professor of Education in Curriculum and Instruction, Juli Kramer, doctoral candidate, and Hilary Burg, doctoral candidate. Kramer and Burg also deserve a world of thanks for their unique and creative lesson plans. We hope Creativity Resource has not only allowed them a chance to explore artworks in the DAM’s collections but also helped them communicate and further spread their ideas about education, creativity in the classroom, and the power of art in an effective and inspiring way.

Roy Anneberg, Pamela Reich, and Chad Robertson, all teachers in the Denver area, also wrote lesson plans for the project. We’re confident that teachers, students, and those in the education field will be changed by the lessons on the website, and we offer our deepest thanks to all of our lesson plan writers for their hard work, dedication, and friendship.

DAM staff in a number of departments—Accounting, Administration, Exhibition and Collection Services, Communications, Conservation, Development, Education, Protective and Facilities Services, Photography, Technology, as well as all the curatorial departments—devoted many hours to the project, and we are forever grateful for the camaraderie, support, and confidence offered throughout the course of this project. “You never invent a family program, a backpack program, or a teacher web resource without having lots of impact on other people in museum staff, and they all deserve a huge thanks,” says Patty Williams.
We would particularly like to thank all the master teachers—Lisa Steffen, Sonnet Hanson, Melora McDermott-Lewis, Patty Williams, and Heather Nielsen—and curators—Ron Otsuka, Donna Pierce, Nancy Blomberg, Timothy Standring, Christoph Heinrich, Darrin Alfred, Margaret Young-Sanchez, Peter Hassrick, Thomas Smith, and Alice Zrebiec—for their work on Talking With Visitors papers and for being patient and timely in reviewing and approving content for the website.

Patty Williams, Head of School and Teacher Programs, deserves many thanks for her initial conceptualization of the project and dedication to making the DAM’s website a truly rich and unique resource for teachers across disciplines.

Ellen Spangler, Project Manager, Jocelyn Howell, Project Assistant, and Kim Nochi, Editor, managed to complete this very ambitious project in just two years and we offer our genuine thanks for their personal investment, dedication, flexibility, and confidence that no matter how huge of an undertaking this was, the Creativity Resource is a project that will have a lasting impact on everyone who visits the site.
cover images

(Left to right)

Four-faced Hamat’sa Mask, 1938, George Walkus. Native arts department acquisition funds.

Album Quilt, Mid 1800s, Elizabeth Sanford Jennings Hopkins. Neusteter Textile Collection: Funds from Mrs. Irene Littledale Downs, Mrs. August Kern, and Mrs. Alexander Girard by exchange.


Mountain Lake (Eagle Nest), 1935, Ernest Blumenschein. William Sr. and Dorothy Harmsen Collection.

Summer, 1572, Giuseppe Arcimboldo. Funds from Helen Dill bequest.


Phantom Tattoo, 1965, Gene Davis. Gift of Mr. Vance H. Kirkland.


Plaque, About AD 450-900, Artist not known, Parita, Panama. General acquisition funds.

The Things I Have To Do To Maintain Myself, 1994, Roxanne Swentzell, Santa Clara. Funds from Polly and Mark Addison.


Frederic C. Hamilton Building, 2006, Daniel Libeskind and Davis Partnership Architects.

Suit of Armor, Edo Period, Japan, 1700s, Juryo Mitsumitsu, Haruta Katsumitsu, and others. Anonymous Gift.

Hayagriva Sand Mandala, 1996, Monks from Seraje Monastery. Funds from the Asian Art Association, Mr. and Mrs. Yale H. Lewis, NBT Foundation, Fay Shwayder, and the Asian Art Department Acquisition Fund.


Hanuman Sculpture, 1800s, Artist not known, Southern India. Funds From Collector’s Choice.

Poppies, 1931, Andrew Dasburg. Funds, by exchange, from Mr. and Mrs. Gibson Gardner and Mr. and Mrs. Bayard J. Young in memory of Governor Oliver H. Shoup, and Mr. and Mrs. Merrill E. Shoup, Helen H. Erickson, YWCA, Elizabeth Scanlan bequests, Art America Fund, A. Wassenich Collection, and general acquisition funds.

Drum, 1900s, Artist not known, Senufo. Gift of Mr. & Mrs. Emmett Heitler.
## DENVER ART MUSEUM
### JOB DESCRIPTION

**Employee:**

<table>
<thead>
<tr>
<th>POSITION TITLE</th>
<th>JOB CLASSIFICATION / PAY GRADE</th>
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<tr>
<td>COORDINATOR OF TEACHER ON LINE RESOURCES [TROL] PROJECT</td>
<td>(to be supplied by Human Resources)</td>
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### POSITION PURPOSE

- To coordinate, develop and implement Teacher Resources On Line (TROL) Project at DAM. Position is grant funded and lasts for 2 years ending December 2009.

### ESSENTIAL DUTIES/RESPONSIBILITIES (items which constitute approximately 80% of responsibilities)

- Prepare refined and detailed plans for accomplishment of TROL as needed and requested from supervisor
- With approval of supervisor, write all reports (to donors and other interested parties), updates, and other communication needed including a final report to DAM staff on practical means of operating TROL on an ongoing basis after end of grant period and a final report to the museum education field on TROL for publishing on DAM web site. Do all reports in collaboration with museum staff as assigned by supervisor. For example do donor or reports in collaboration with development staff and education supervisor.
- Manage education components of budget for project including working with accounting department DAM to set up budget system, periodic budget reports, execution of all related contracts and payments and purchases
- Coordinate implementation of TROL related to 100 works in DAM collections in two year project. [25 works in first year and 75 more in year 2]
- Use DAM “Best Practices” research as guidelines for development of TROL
- Coordinate development of art history, biographical, and cultural context content related to 100 works in DAM collections and do this in collaboration with DAM master teacher staff (who originate content with input from curatorial staff and make final approval of content listed in this item).
- Supervise and coordinate work with University of Denver staff and students to develop lesson plan content for elementary and secondary teachers, and social studies, language arts and visual arts teaching. Includes selecting lesson plans for inclusion in TROL in collaboration with DAM master teachers.
- Coordinate all editing assistance needed (mostly done by contract staff) with input from DAM education interpretive writer re DAM standards and practices.
- Manage and supervise work by volunteers, students, contract staff and interns as needed for lesson plan development.
- Coordinate, in collaboration with Education staff, selection of 100 works for inclusion in TROL
- Coordinate and implement, in collaboration with DAM Photography department staff and rights and reproductions staff, development of all images for use on line including images of works in DAM collections and any illustrative material needed.
- Collaborate with DAM technology and web staff to develop a content input system that is easy for education staff to use on an ongoing basis and train education staff for same.
- Input all TROL content using technological system DAM IT and web staff develop. Learn any coding needed, and word process and input all content information. Supervise any needed assistance from contract staff, volunteers and interns.
- Act as effective spokesperson for TROL within DAM and in Colorado teaching and school community and share this role as needed with museum master teachers.
- Initiate and nurture key contacts among university, museum, school and other Colorado communities to better understand TROL and to encourage and support its use by teachers.
- Coordinate all evaluation and input from teachers to assure usefulness of TROL including writing reports, scheduling, coordinating preparation meetings and evaluations. Use best practices for such evaluation as practiced by art museum community. Become familiar with small sample evaluation and visitor panels as practiced at DAM.
- Coordinate teacher training (workshops both live and online, demonstrations, etc.) and communication (art mail, school email, newsletters, etc.) for school and teacher community to raise awareness of TROL and encourage use in SCFD districts, rural Colorado and other Colorado communities
- Develop effective relationship and collaborative projects related to TROL with RAFT

**OTHER DUTIES/RESPONSIBILITIES**
- Work effectively with other museum departments to ensure that increased work loads resulting from TROL are reduced for other departments and executed by TROL staff
- Other responsibilities as assigned

**JOB QUALIFICATIONS**

**Knowledge, Skill and Ability**
- Ability to work in collaborations with others
- Ability to organize and track details
- Public speaking skills
- Knowledge of museum education and school education practices and relations
- Knowledge of visual arts
- Familiarity with school curricula in visual arts, social studies, and language arts (or ability to quickly become informed)
- Writing skills for education materials
- Word processing, Photoshop skills and ability to quickly learn new software applications as needed

**Education or Formal Training**
- B.A. required, MA in Education preferred

**Experience**
- Teaching with museum collections
- Teaching teachers using museum collections
- Museum web resource content development for teachers
- Evaluation using panel discussions, surveys and interviews
- Managing and supervising interns, contract staff and volunteers
Material and Equipment Directly Used
- Telephone, copier, fax machine, computer, art supplies, laminator

Working Environment/Physical Activities
- Variable work schedule (some weekend and evening work)
- Sitting, working with hands, working with fingers, talking, hearing, vision
- Subject to interruptions
- Mental demands: written and oral comprehension
- Ability to lift 25-30 pounds

NOTE: This job description is not intended to be an exhaustive list of all duties, responsibilities, or qualifications associated with the job.
DENVER ART MUSEUM:

CREATIVITY RESOURCE WEBSITE
EVALUATION REPORT

By:

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Gary Lichtenstein, Ed.D.

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Submitted
May, 2009
ABOUT THIS REPORT

In the fall of 2008, the Denver Art Museum (DAM) developed and implemented a resource site for teachers that would allow them to download art images, adopt lesson plans designed for these images, and learn more about creativity and creative thinking. The goals of the Creativity Resource Website (CRW) are to inspire creativity in teachers and students and to make life easier for teachers by providing downloadable art images, reliable information about the images and about creativity, lesson plans and resources.

DAM enlisted the help of Quality Evaluation Designs (QED), an independent consulting firm, to evaluate the project. QED posted an online survey and conducted interviews to assess teachers’ experience with CRW. Beginning in January, 2009, teachers who used the CRW were asked to complete the online survey to assess whether these goals were achieved. They were also asked if they were willing to submit to an interview about their experiences with the website. A preliminary report summarizing and analyzing responses to the online survey as of March 1st, 2009, after the materials had been posted online for three months, was submitted to DAM at the end of March. Interviews with consenting teachers were conducted in late March and April, 2009. This report integrates the previously reported survey findings with the qualitative experiences of teachers who made use of the CRW lesson plans.

QED is grateful to Denver Art Museum staff for their cooperation with this evaluation, and to the many teachers whose feedback will improve the CRW.
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ABOUT THE DATA

The survey data reported in this analysis were gathered from a 23-item, on-line survey designed by QED and posted on the Denver Art Museum (DAM) website. The survey took approximately 10-15 minutes to complete and teacher respondents were entered in a bi-weekly drawing to win a DAM membership. The survey was also heavily promoted in teacher workshops about the CRW. The home page of the DAM has a tab that guides browsers to a section that deals with learning and lessons. Once here, DAM site users learned about the on-line survey. The survey was first posted on December 5th, 2008 and the data reported below are from the 69 teachers who completed the survey as of March 1st 2009. A copy of this survey can be found in Appendix A to this report.

The qualitative data were collected through a series of interviews of teachers who had responded in the survey (a) that they had used an art object or image on the website and the lesson plan pertaining thereto at least once, and (b) that they were willing to be interviewed about their experiences using the website in the classroom. An interview protocol was prepared in collaboration with DAM staff, and the interviews, which were unstructured, loosely followed the protocol. The face-to-face interviews were recorded, lasted from 35 minutes to one hour and 20 minutes, and took place at the venue of each individual teacher’s choice: at her home, in a Starbucks near his school, at the DAM, in her classroom. A copy of the interview protocol can be found in Appendix B to this report.
INFORMATION ABOUT TEACHERS AND SETTING

SURVEY RESPONDENTS

This section of the survey gives us information about the teachers who used the Denver Art Museum (DAM) Creativity Resource Website (CRW) and their classrooms. A majority of teachers work in elementary students (46%), while 26% work in middle schools and 21% work in high schools. A small proportion (7%) reported working in Early Childhood Education.

The majority of respondents (70%) live within 30 miles of Denver. Over 40% have been teaching between 10 and 20 years and another 10% have been teaching over 20 years. Fifty-six percent of respondents learned about the CRW through the DAM weblink, and another 36% learned of CRW through teacher art mail. Over 50% of the survey respondents are visual arts teachers. The most commonly reported use of art media were color and black and white printouts (41%), LCD projector (28%), Student Computers (13.2%) and Overhead Projectors (11.3%). When asked how often they give assignments to students that require them to find information on the internet, the majority responded from once a month to rarely.

A number of cross tabs analyses were run to determine if there were any relationships among the variables reported in this section. (The tables are complex and they will be put in an appendix for the final report). Teachers at the levels of early childhood, elementary, and middle school more often reported that they found out about the CRW through art mail. High school teachers, on the other hand, were most likely to learn about it through links from DAM. The LCD projector was the most common form of media use for the high school teachers while color and black and white prints were most used by early childhood, elementary, and middle school teachers. As would be expected, high school teachers were the most likely to give assignments over the internet, and early childhood teachers the least likely. Broadband DSL is the most common form of internet access for all grade levels. Of all types of media usage, visual arts teachers, generalists, and ELA teachers were most likely to use color print outs. Math and science teachers made more use of LCD projectors and individual student computers than teachers of other subjects. There were no differences in media use across levels of experience. However the more experienced teachers were more likely to give assignments over the internet than the less experienced teachers.
What distance in miles, do you live from Denver?

How long have you been in the education/teaching profession?

QED, May 2009 5 CRW Evaluation Report
In what type of school do you teach?

- College: 80%
- Home-school: 60%
- Private: 40%
- Public: 20%
- NR: 0%

How often do you give assignments to students that require them to find information on the Internet?

- Never: 30%
- Rarely: 20%
- 2-3 times a month: 10%
- Once a week: 0%
- Once a month: 0%
- 2-3 times per week: 0%
- Every other day: 0%
- Once a day or more: 0%
What type of internet access do you have in the classroom?

<table>
<thead>
<tr>
<th>Access Type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadband/DSL</td>
<td>100</td>
</tr>
<tr>
<td>Dial-up</td>
<td>80</td>
</tr>
<tr>
<td>None</td>
<td>60</td>
</tr>
<tr>
<td>DK</td>
<td>40</td>
</tr>
<tr>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>All respondents</td>
<td>100</td>
</tr>
</tbody>
</table>

How I Learned About the CR Website

<table>
<thead>
<tr>
<th>How I Heard About the CRW</th>
<th>Responses</th>
<th>Percent</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I scheduled a field trip</td>
<td>2</td>
<td>3.6%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Teacher ArtMail</td>
<td>31</td>
<td>56.4%</td>
<td>58.5%</td>
</tr>
<tr>
<td>Link from DAM</td>
<td>20</td>
<td>36.4%</td>
<td>37.7%</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>2</td>
<td>3.6%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0%</td>
<td>103.8%</td>
</tr>
</tbody>
</table>

Note: The percent is greater than 100 because respondents could check more than one choice.
## Current Grade Level Work

<table>
<thead>
<tr>
<th>Grade Level Work</th>
<th>Responses</th>
<th>Percent</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>10.0%</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Early Childhood</td>
<td>7.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>61.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School</td>
<td>35.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>28.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>135.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The percent is greater than 100 because respondents could check more than one choice.

## Subjects Taught

<table>
<thead>
<tr>
<th>Subjects Taught</th>
<th>Responses</th>
<th>Percent</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalist</td>
<td>18.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELA</td>
<td>15.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign language</td>
<td>5.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>3.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>6.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>13.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual Arts</td>
<td>70.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>3.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>135.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The percent is greater than 100 because respondents could check more than one choice.

## How Art Images Are Used In The Classroom

<table>
<thead>
<tr>
<th>Use Art Images In Class</th>
<th>Responses</th>
<th>Percent</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Print Outs</td>
<td>65.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black and White Prints</td>
<td>36.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide Projector</td>
<td>11.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over Head Projector</td>
<td>28.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCD Projector</td>
<td>71.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive Whiteboard</td>
<td>6.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Student Computers</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>252.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The percent is greater than 100 because respondents could check more than one choice.
INTERVIEWED TEACHERS

Reflecting the attributes of the teacher population responding to the survey, the backgrounds and circumstances of the eight public school teachers interviewed ranged widely along a number of variables:

- **Years of teaching experience**: one teacher had fewer than three years of experience teaching, two have taught from four to ten years, and five have been teachers for over ten years.

- **Grade level**: one teacher teaches kindergarten, three teach elementary school grades (either K-6, 1-6, or K-5, depending upon the configuration of their school), one teaches middle school (grades 7 and 8), and three teach high school (grades 9-12).

- **School location**: four teachers’ schools are located within 30 miles of Denver (Jefferson County, Thornton, Sheridan, Aurora), and four beyond 30 miles (two in Colorado Springs, one each in Douglas County and Fort Collins).

- **Level of school affluence**: based upon how the teachers described their schools, the general level of affluence of families whose children attend them – three of the schools might be characterized at a low to medium affluence level, and five at a medium to high level.

- **Subject matter taught by the teacher**: four of the interviewees are visual arts teachers (one of them, exclusively graphic arts); one is a general classroom teacher; one teaches social studies (civics, economics, world history), one is a reading intervention specialist, and one is a technology specialist.

- **Type of school**: five of the teachers’ schools are general public schools, and the remaining three are magnet schools (technology, international baccalaureate, alternative school for at-risk youth).

- **How they learned of CRW**: the four art teachers all learned of the website through in-service programs at the DAM, arranged either through the district or at the behest of enterprising teachers; two of the non-art teachers were on the ArtMail list and received newsletters linking to the website; one who had, in the past, regularly attended annual “teachers’ fairs” at the DAM received a postcard stating that there would be no fair this year, but directing him to the website; and the fourth teacher, new to Colorado, was looking for a way to incorporate art into her reading classes and found the website on her own.

- **Technology available in the classroom**: four of the teachers have the technology available within their classrooms to enable them fully to avail themselves of all the features of the CRW, from projection devices to student computers; two teachers have projection devices, but no classroom computers for
the students to use, creating the need to be able to produce clear prints of the art objects if the students are to be able to look at them when the projector is off (one would be able to reserve space in a computer lab for her class’s use if she planned far enough in advance); one believes she has the technology available, but did not use it, preferring print out copies for the students’ use; and one teacher effectively has no access either to LCD projectors, screens, or computers for his students’ use unless he reserves them months in advance – a virtual impossibility. It should be noted that those schools with the least technology access are also the schools whose families appear to be the least affluent, in the teachers’ view.

**TEACHERS’ EXPERIENCE WITH RESOURCE CENTER**

**SURVEY RESPONSES**

One section of the CRW allows teachers to browse through nearly two dozen art images and learn about the culture, media, period, and region associated with each. The survey asked a number of questions about the teachers’ comfort when using this feature. As can be seen from the charts below, the overwhelming majority of teachers (70%) found it *easy or very easy* to find information and resources for their grade level and subject taught. Seventy-five percent of teachers also indicated that they found it *easy* or *very easy* to locate information about the art objects in which they were interested and to use them. Finally, 75% of the teachers indicated that they were able to find information and resources that were personally interesting to them, and that they were excited about using the artwork. Seventy percent of teachers found it *easy* or *very easy* to use the art images, and over 90% felt confident talking about the images with their students.

Cross tabs analyses that examined comfort in use of CRW and grade level of teachers showed that for all six of the questions asked in this section of the survey, the early childhood teachers reported difficulty to a much higher degree than teachers at any of the other levels. There were no differences among the three other grade levels in satisfaction with the CRW experience.

With respect to relationships between subjects taught and satisfaction with the CRW website, science and social studies teachers reported the most difficulty in using the site. Teachers of all other subjects reported that the experience of the CRW was *easy* to *very easy*.

There were no differences in the comfort of using the CRW across levels of teacher experience. The more experienced teachers found the CRW just as interesting, informative, and exciting as the less experienced ones.
Easy to find info and resources for my subject.

- Not at all easy: 10%
- A little difficult: 5%
- Easy: 45%
- Very Easy: 55%
- NR: 0%

Easy to find info about the art objects.

- Not at all easy: 10%
- Easy: 30%
- Very Easy: 60%
- NR: 0%
Easy to find info and resources of interest to me personally.

- Very Easy: 50%
- Easy: 40%
- a little difficult: 30%
- not at all easy: 20%
- NR: 10%

Found info I am excited about using in my classroom.

- Very Easy: 60%
- Easy: 50%
- a little difficult: 40%
- not at all easy: 30%
- NR: 20%
Easy to use the art images:

- Not at all easy: 60%
- A little difficult: 50%
- Easy: 40%
- Very easy: 30%
- NR: 20%
- Not at all easy: 10%

Confident about talking about the artwork in the classroom:

- Yes: 100%
- NR: 0%
INTERVIEW RESPONSES

The survey asked some broad questions about how easy the teacher respondents found the CRW to use. The interviews expanded upon these survey questions by looking in more depth at (a) the extent to which teachers found the CRW easy to access and use; (b) the ability of teachers to fit CRW materials into their classroom teaching; (c) the ease with which the CRW resources could be used at different grade and ability levels; (d) the design of and content-writing in the website; and (e) how the CRW compares with other available resources.

Ease of Use. Overall, the teachers report finding the CRW to be very easy to use. One noted that “you can go up through the lesson plans, and you can choose the level, and how easy is that, and you scroll down and the images are right there….it’s just so accessible….it’s right there in front of you, it’s like you’re cheating a little bit.” Another loved that “it was extremely to navigate.” She was “impressed with the ease with which [she] was able to read it one day, use it the next day, and it went extremely well.” A third also found it “very easy to navigate, I didn’t have any trouble, the link is boom, right there,….visually it’s real easy to get around on.” The technology teacher, who presumably knows about such things, also found it “super easy to navigate.”

The ease of use and accessibility is very important to these busy teachers, stressed for time and resources, who “don’t always know where to look for things, you don’t have time, it’s all right there, it’s nice to have the variety.” The high school graphic arts teacher applauded “anything like that the teachers don’t have to do – we have this all ready for you, you just have to print it off!” Having the CRW readily available saved the middle school teacher “from a research project [she] doesn’t have time to do” – the materials about the artist, “that background information about what the artist intended with the piece” were all right there for her. The technologist agreed that “as a teacher, especially elementary school teacher, we don’t have the time, unfortunately, to get out there and do lots of research.” The kindergarten teacher stressed that, when she was looking for easy-to-use art resources for her class, “there are 872 gazillion websites that can give you how to make a crafty penguin, but [she] was looking for something that would provide a little more rich lesson than the typical K-1st grade art lesson,” and one that was easy to incorporate into her ongoing curriculum.

“Fit.” Being able quickly and easily to fit a lesson from the CRW into existing curricular efforts was a true plus for these teachers. From time to time, they need a lesson that “has all the pieces…that you need to teach it, [and that] doesn’t require a lot of prep time on my part.” A very experienced art teacher noted that, when she first learned about CRW from the in-service session at the DAM

it looked like something…that I could walk right in the next day and use – and that’s what we’re always looking for, something we can fit right into our curriculum, that’s available, and in a heartbeat you can get this on, pull it up, and since she had shown us how easy it was to use, I thought, well, I’ll just get on
tonight and look at it and see if there’s something on there that will fit into what I’m doing right now. And….there was.

Sometimes a teacher needs “something I can fit in a 40 minute or maybe two 40 minutes sessions….if we’ve got a day here and there where we need to fit something in, I know this is perfect for that.” The reading intervention specialist, who has taught struggling and special education students in other states, and who finds art to be “a fantastic medium through which to do that [because] reading especially is difficult if you don’t have interesting things to do,” has enjoyed the way she can fit the CRW resources into her otherwise rigid reading curriculum in her Colorado school:

having the website there is really helpful – having used art pieces a lot in the past to bridge concepts for struggling learners, when I can see an element in my classroom that they are struggling with, it is easy for me to go on the website and find an art piece I can utilize…I’m thinking, how can I reinforce this? Because if we’ve passed it in the curriculum, it may come back to it, but it may be much later, when the student has completely forgotten what it is in the first place, so [the art] is a quick reinforcer that I can use, and the website really helps me with that.”

**Grade and Ability Levels.** The teachers also found a good fit between the materials in the website and the levels at which their students learn – whether it be grade level, level of art expertise, gifted or struggling, traditional or alternative learners. The technology specialist, who thinks it’s “hard to find things that will keep [the kindergarten kids] interest that I can adapt to what I’m doing…40 minutes is a long time for K kids,” was pleased that the website had sections devoted to younger children. A brand new art teacher was excited to find materials “fitting into the emphasis of study at that grade level.” The kindergarten teacher found the CRW resources “broad enough to be used at every grade level, most teachers can exercise their own creativity to make it fit for their particular class and grade level, tweak it.” The high school social studies teacher’s colleague, teaching a special education class in world history, was struggling finding a way to get students connected with ancient China – and he pointed her to the website, where she was able quickly to find “some very hands-on activities for the kids [with the sand mandala lesson plans];” she could explore the comparable lessons geared to different grade levels, and easily pick and choose those elements that would fit into what her special education students were able to handle. The reading specialist “really liked how the same art pieces were used for the different levels, so it was really easy to differentiate by looking at…let’s say the high school lesson plan is a little too complicated, or not something I have time to do, I can go down a step, until I find something I can tailor for me.”

This aspect of “fit” and “ease of use” at all student grade and ability levels left a very positive impression on both the very experienced and the relatively novice teachers. Even a long-time art teacher understands that “even though we’re art teachers….we have not seen every piece of art work, we don’t know the history behind every single one…so that’s what I love, that’s the best part, I am constantly learning, I have to educate myself
in order to educate my students.” Both she and the experienced technology teacher enjoyed the ability to “zoom in on different parts of the art work” and see thumbnails revealing specific pieces of information about what to look for. The technologist said it “made me feel like I was a little smarter about art…with the kids.” For the newer teachers, a website like this is a “godsend;” for “especially brand new teachers, 1st and 2nd year teachers that are so overwhelmed with standards and lockstep curriculum, they’re not going to know where to go,” the CRW can be a tremendous help to find resources that seem otherwise out of reach.

**Design and Content.** The teachers were generally complimentary about the overall design and content of the website resources. The most experienced of the lot noted approvingly that “you could see how well thought out it was…that’s what I love about this, it’s so well thought out.” She continued:

> it was written in a format that I was used to using as a teacher. It felt like it was written by a teacher…it was user friendly for a teacher. It was well broken out, it’s not overwhelming, either,…it’s very well organized,…as I looked at it, I just felt that it was everything I needed, and there wasn’t too much, so it was something I thought I could just pull up and use…they’re doing it right. …And they were not things that, I’ve looked at some lessons that were …too simplistic, there was not enough there, I would have to go find things to add to it. This was just a read it, sit down and use it, and as I taught it, I didn’t have to restep…that’s unusual.

Others agreed that “it was written very clearly, with stated objectives, etc.” The website “does an excellent job of content-writing.” The materials presented “are pretty comprehensive.” The “look of the site is very professional.” The fact that the website has only so many objects lined up on each page was particularly appealing to one busy teacher, because “it doesn’t overwhelm you with options.” It seemed a consensus among the teachers that the website is designed to strike an appropriate balance between thoroughness of provided information, so that a teacher does not have to search for additional resources to supplement it, and limits upon the amount of information, so that a teacher is not overwhelmed by what is provided.

**Comparable Resources.** Finally, it should be noted that, with the exception of two of the art teachers with many years of experience, the teachers felt that comparable sources for the types of resource material contained in the CRW are simply not available here. One poignantly observed that “as art teachers, we have so few resources …there is nothing like this out there. …Other museum sites are mostly just visual, with no backup.” For the kindergarten teacher, the CRW provided a valuable alternative to simply “calling my friend the art teacher.” Using the website, instead, turned out to be “way more efficient. There are examples. It’s clearly written. That’s way easier than just chatting with someone.”
TEACHERS’ EXPERIENCE WITH QUICK IDEAS

SURVEY RESPONSES

The ‘Quick Ideas’ section of the CRW contains concise suggestions about how to use art in the classroom. The teachers had a very positive reaction to this feature. Over 75% indicated that they will both use the suggestions that were offered and turn the information into classroom activities.

A series of cross tabs analyses were run to identify any reasons why some teachers were more or less likely to use the Quick Ideas. There were no differences in the likelihood of using Quick Ideas across subject areas, grade levels, how the teacher typically used media, or years of teacher experience. The only variable related to use of Quick Ideas was the obvious one: the more the ease of use of the CRW the greater the likelihood of using these ideas.

![Bar chart showing the likelihood of using Quick Ideas](chart.png)
INTERVIEW RESPONSES

Only one of the interviewees directly addressed use of the “quick ideas” feature of the CRW. The reading specialist greatly appreciated this section, noting that

what I really like about it is if you don’t want the entire lesson plan, you can click on right below the art piece, and it gives you that very succinct blurb about the …artist and it will give you some questions to ask – sort of like “lesson plan at a glance.” Ant at the very end of it, it will give you like comprehension questions to ask about inquiries into the painting, which is phenomenal for those last 5-10 minutes at the end of class left over and you want them to do something.

For the very busy teacher, a feature like this that can be used immediately, with little or no prep tie, that fits so easily into existing lesson planning and timing, and that still imparts rich and valuable curricular elements to his or her students, is a plus indeed.
TEACHERS’ EXPERIENCE WITH THE LESSON PLANS

**SURVEY RESPONSES**

This section of the CRW invites teachers to download full lesson plans that are linked to the art images. The lesson plans include objectives and activities appropriate for early childhood, elementary, and secondary school levels. Fewer than 20 percent of the teachers indicated that they had made use of CRW lesson plans. Of those that did, almost all indicated that they could connect the lessons with the Colorado State Content Standards, and that they could adapt the lessons to the specific needs of their classrooms. (Note: the NR bars in the last two graphs indicate the percentage of teachers who did not respond because they did not use the lesson plans.) The teachers also felt that student engagement in these lessons was affected very positively.

As with the Quick Ideas, cross tabs analyses were run to identify associations with whether or not teachers used the lesson plans. Similarly to the Quick Ideas results, there were no differences in the use of the lesson plans depending on grade level taught, teacher experience, subjects taught, and use of media. Difficulty associated with the use of the CRW was the only variable related to lesson plan use.

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Have you used a lesson plan from the Creativity Resource website (or a revised version of it) in your classroom?

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td>No</td>
<td>80</td>
</tr>
</tbody>
</table>
Can connect lesson plans with Colorado Content standards.

Can make changes to lessons to suit needs.
I NTERVIEW RESPONSES

The survey questions looked generally at respondents’ use of the lesson plans, the inclusion of state standards in the lesson plans, and students’ engagement with the lesson plans. In their interviews, the teachers commented in considerable depth upon: (a) the content of the lesson plans; (b) how they felt the lesson plans connected with state or district curricular standards, (c) how the teachers used the lesson plans, and (d) how well the students were engaged by the lesson plans when taught.

Content of the Lesson Plans. Overall, the teachers were taken with “the thoroughness of the lessons” and how they are “pretty comprehensive.” The fact that the lessons include “actual pieces of art” – “little segments …with images you can explore” -- images that are “compelling” and of high quality – impressed the teachers. The elementary school art teachers were particularly delighted with the way that the lesson plans easily incorporated basic “principles of design” – “rhythm…line, shape, color” – and helped their young learners in “discovering some of the elements of design, principles of what starts as a foundation for them to learn art. …They’re able to break down formal lines, colors, depth, scale and all that, that’s presented in the lesson.” But beyond formal compositional art content, teachers were pleased with the different kinds of background information that the lesson plans put easily at their fingertips. A new art teacher loved how the lesson plan situated his young students so as to be “able to explore the culture” – the story of Albert Bierstadt pioneering in the wilderness with a paintbrush rather than a camera to capture what he saw. The combination of what he called “the
cultural piece” with the suggested “hands-on” activities and the formal art instruction made the whole lesson plan package appealing to him. The reading and technology teachers found the “hands-on” activities suggested in the language arts portions of the website (suggestions for writing prompts to be used in conjunction with the art work) to be very useful and easily deployed.

Most teachers had nothing but praise for the way the lessons delve into the artists’ processes – their backgrounds, what they inspired them, what they intended to communicate, etc. As one of the teachers put it:

I love the thing where with each artwork, it’s got who it’s by, what’s the inspiration, because a lot of [other sources] that I find aren’t going to have that background, and it makes it that much easier for a teacher who probably has in her mind some information, but not a lot.....where the guy lived, what he was thinking about, especially with contemporary art, it’s so important to know what the artist’s intention was.”

And, as discussed further below, the teachers spoke approvingly of the inclusion of state standards in the lessons themselves.

**State and District Standards.** All of the teachers were extraordinarily pleased with the inclusion of Colorado State content standards in the lesson plans. It was noted with approval that “every lesson that I looked at had the standards listed.” The reading intervention specialist, in speaking about the way the lesson plans are crafted, said

I love the fact that they have the standards. Because when I’m writing my lesson plans that I have to submit sometimes, I can put that in there…when I’m currently covering standard 5, this goes with that....in my language curriculum, it tells you the standards you’re covering, so it’s very easy to align art pieces with that, which works out well.”

For the technology specialist – whose subject matter specialty is not, as yet, governed by state standards – the inclusion of language arts standards in the CRW has proved helpful in her working as part of the team with classroom teachers: “I can do something in here that will support what they’re doing in their classrooms...one of the language arts standards would be … writing a variety of materials, for a variety of audiences, that I’m able to over some of that in here” with the help of the website lesson plans.

The extent to which the lesson plan contained materials covered by their school district or school-specific standards also worked well for the teachers. The long-time Douglas County art teacher noted how one lesson helped her convey an understanding of “thick and thin lines, which is one of our ‘essential learnings’” – the district’s moniker for their standards for visual arts, piggybacked upon the State standards. The Jefferson County art teacher was happy with the inclusion of a lesson plan connected with a landscape (a painting by Bierstadt) in part because it “works with our CAP [curriculum alignment plan] documents.” The kindergarten teacher in an IB (international baccalaureate) school
came upon the website when looking for curriculum to comply with the rigors of their “How We Express Ourselves Through Various Art Forms” IB Planner – and found at least two lesson plans that met the IB standards nicely.

The teachers feel that incorporating the standards into art-based curricula is very important. One noted “how vital it is, to be sure that you are addressing standards in every lesson that you teach…not only is it vital to the students you are teaching, but when you are interacting with administration, parents, with the community.” Because assessing achievement art can be so subjective, and because art can be perceived by some as peripheral to the overall core mission of schools to teach students basic reading, writing and math skills, the need to connect art education to standards is a pressing concern. The graphic arts teacher, after lauding her particular district for not “want[ing] to tell you what to do in the classroom” and her school administration for being “supportive [and having] no set curriculum for art teachers,” conceded that “every school in this district in art class…likes to see how this kid is graded…. [it’s] very subjective…the work can’t be graded on opinion…” The middle school art teacher acknowledged what for her was a sad truth: “it’s a shame, but art is still an area that has to be justified.” The inclusion of standards in the CRW lesson plans affords a valuable and easy-to-use tool to help these teachers provide that justification when needed.

One teacher thought the website should go even further in this direction, by including broad goals to which each lesson plan is directed, even a “very general, open ended…rubric,” to help teachers determine what evidence of achieving stated goals should be apparent by the end of the project, for grading purposes. And the lone social studies teacher in this sample bemoaned the absence of social studies-related content standards in the CRW. Because of this gap, he believes that teachers in this field will, even if they find the website, decline to avail themselves of this valuable resource, since it does not purport to apply to what they teach: “it’s going to be a turnoff.”

**Use of Lesson Plans.** The extent to which each teacher used the lesson plans varied. The novice art teacher “used all the pieces of the lesson plan,” and the technology specialist “pretty much followed the lesson plan” from start to finish. The kindergarten classroom teacher “tweaked it” quite a bit “to make it fit” the abilities and interests of her particular class; for example, she used the artist’s process piece for one of the lesson plans, but not for another. The reading specialist used the background of the artists in all cases, but sometimes had to modify the lesson plan options because she did not think her students “had the level for that.” The experienced elementary school art teacher used the lesson plan sparingly in some cases – for example, she “used just the art images when I did some landscape work…we kind of looked at the landscapes and I did my lesson, I wasn’t actually using their lesson plan” – but in another “it was 50/50. I was able to really use the image…[and] I either did the ‘who made it,’ the ‘what inspired it,’ or ‘the things to look for,’ with all of my classes.” The high school graphic arts teacher did not use everything in the lesson plan – she “definitely picked and choosed [sic] to make it fit what I’m doing in the classroom.” She noted that she “used the art object most with the kids…[but] for me personally, delivering it to the students, I used the artist statement, the inspiration, and the background behind the piece.” Another teacher had already done a
mandala-making activity with her seventh grade class when she came upon the lesson plan in the website; she used it to supplement her own lesson, including historical background and the student interactivity with the art object that the website enabled her to include.

The teachers agreed that the website lesson plans were crafted to afford them needed flexibility in how they made use of the lesson plan resources for their particular classrooms – and they appear to have taken full advantage thereof.

**Student Engagement.** In the first interview for this study, the elementary art teacher was asked directly whether her students were engaged with the CRW lesson plan that she taught. She responded:

> This was the kind of lesson that if my principal walked in on, I would love him to see. He could see that it was not just, oh kids, draw a line like Mrs. G___ is doing. Some lessons are like that...It’s like a virtual field trip. It’s got art history...you’ve just got everything. ...He would see kids doing their own work, then walking around and sharing and looking at others...Kids motivated and having fun...I think it was very focused...my two groups that struggle with focusing, I think they were very focused on this...[It was ] fun. You know that when they finish another project they want to go back to do this again.”

Taking a cue from her, I asked the other interviewees what their principals would have seen had they walked in on their teaching of a CRW lesson plan. One said that “he would be seeing…the students being engaged in the lesson itself.” He noted that the students “got all excited about it,” and that accessibility of the CRW to them – for use at home, in the library, or with him, is “a natural draw for them,” eliciting “that natural spark.” The kindergarten teacher’s principal actually did walk in on her mandala lesson, and

> He was impressed. He came in during the sugar mandalas, and he was like “whoa!” He mentioned in my review that the level of engagement [in my class] is always high, but it was extremely high with this lesson….no one even noticed that he came in...during the stripes [another CRW lesson], the parent who was at that center talked about how the level of engagement was high at that center, too.

The teacher at the alternative middle school “was surprised…at how enthusiastic they were over the piece of art work. Part of it was they could fiddle with all the keys, and move stuff around – and they were interacting with one another more than they would have if I had just passed around a picture of it.” (Her principal is happy, she noted, “when he sees kids engaged with each other and not running down the hall.)

The reading intervention specialist, understanding that her students would not all be drawn to the same kinds of art work (given their “very different personalities”), gave them a choice between two different pieces and lessons – thinking that “if they didn’t engage with the first one, they [would] engage with the second one.” As a result, her
principal would have seen “that they were very engaged. That they were answering questions, and that they were interested in the discussion, and interested in the writing.” If the principal had walked in on the technology specialist’s lesson, he would have seen “that they were engaged...they were talking, she would have been pleased...kids were engaged, thought it was neat to have something different.” She wryly commented that her students ‘were more excited after we did this to write the perfect sentence about the artwork.’

When asked why the kids seemed so engaged, the teachers cited a number of specific reasons. A couple pointed to the inclusion of the actual pieces of art: “most of them had never seen anything like this. It was very new. Just looking at it [projected] on the screen, it was very vibrant, it was something they were motivated to look at, they really enjoyed looking at it, and I think that is why they really wanted to give [the lesson activity] a try.” The students “really engage in the art piece, because they don’t get to do a lot of art in their other classes – being able to draw, being able to express themselves – then they get really excited.” The ability to interact with the site and the art objects was mentioned as a draw for some students. And the fact that these pieces of art can be found in a museum in Denver – “knowing it was in the Denver Art Museum, and that they could see it there, that made it more encouraging for them – I got them from the DAM, it must be important – it really energizes them...gives that extra oomph” – contributes to the students’ engagement; that the site showcases Colorado artists and Denver connections “makes it immediately relevant for the kids,” in a way that the teachers found highly motivating. Indeed, in this time of tight budgets, when field trips to the DAM are increasingly out of the question, the CRW creates the immediacy of a “virtual field trip” – a phrase used by more than one of the teachers – that sparks student interest in the museum, in art generally, and in the lessons enriched by the website lesson plans in particular.

In short, all of the teachers heartily agreed that their students were engaged by the lessons taught using some or all of the CRW lesson plans. Not a single comment about lack of student interest or enthusiasm for the projects was heard.

TEACHERS’ EXPERIENCE WITH CREATIVITY RESOURCE WEBSITE

SURVEY RESPONSES

An important aspect of the mission of the CRW is that teachers will learn more about creativity and creative thinking and be interested in expanding this aspect of their professional work. To promote this goal, the website includes a creativity library that gives information about creativity and lists a large number of useful resources that can be found in local libraries. Several survey questions elicited teacher perceptions regarding creativity and respondents’ interest in it. As indicated in the graphs below, 75%- 80% of teachers indicated not only that they found out something new about creativity but that they are also thinking about creativity in a new way. They want to know more about creativity and are interested in attending workshops about it. Cross tabs analyses turned
up no important associations between experience with the Creativity Resource Website and other teacher or survey variables.

I found out something new about creativity.

![Bar chart showing the percentage of respondents who felt they found something new about creativity.](chart.png)
I thought about creativity in a new way.

I want to know more about creativity and creative thinking.
I am interested in attending a workshop about creativity.

INTERVIEW RESPONSES

Survey responses demonstrated that teachers have an interest in the creative process and found that they learned something about that process through the CRW. The interview process obtained the teachers’ input in three related areas: (a) creativity and critical thinking; (b) the role that teaching about the artist’s inspiration and process might play in stimulating student creativity; and (c) the desirability of integrating art into school curricula.

Creativity/Critical Thinking. The teachers recognized the importance of art education not only for the joy of studying art itself, but also for its contribution to the development of critical thinking and the creative process in their students. One teacher noted that “right now we’re talking about critical thinking in our districts, and how do you get kids to look at things and answer questions. And that’s what art is.” The social studies teacher finds art education essential to “develop critical thinking and problem-solving skills.” The novice art teacher encourages focus on “using art just not necessarily something as a creative process, but also as a learning process on different levels.”

The use of art education as a spur to and vehicle for critical and creative thinking among students emerged most markedly in the teachers’ discussions of alternative or struggling students. The alternative middle school teacher observed that “alternative or
nontraditional learners tend to be more creative, but don’t know how to channel it, may never realize they have a visual skill that has never been recognized.” In her view, art is “a way of reaching kids who are not successful academically, give them a place to be successful.” The reading specialist talked at length about using art pieces “to bridge concepts for struggling learners,” and the way that the particular pieces of art (a Remington sculpture of a Cheyenne Indian brave on a horse and the painting “Soliloquy: Life’s Fragile Fictions” by Ogundipe) and lesson plans that she chose to teach appeared to be designed for and were successful in sparking imaginative thinking and creative expression. The running figure sculpture had

them thinking in terms of putting themselves in the position of the Indian…that theory of mind…to be able to put yourself in the position of another person and see what they’re thinking, imagine what they could be feeling, and what’s going on, use your imagination, answer that why question….as far as the mural is concerned, it was more about symbolism, and them being able to examine their own lives and picking out the significant parts….They really express themselves phenomenally through art, which is why I want to have more of it.”

The Inspiration of the Artist. Relating to the creative processes and expression of the students themselves, a number of the teachers specifically mentioned the artist’s inspiration element of the lesson plans. With the little ones, it prompted the teacher to “talk about making our own art just like Gene Davis [the painter of the “Phantom Tattoo” – one of the art objects in CRW] did, how are we going to do that” and to ask, when the children hit a stumbling block about how to make straight lines, “about what Gene would have done.” That got them to brainstorming possibilities -- “the artist did it with paint, what would it be like doing it with paint, what if we did it with tape, you know paint it, pull the tape off – so they were actually processing what it would have been like to have actually done the painting.” She thought that “it’s a really good way for kids to feel like they’re an artist.”

For slightly older children, drawing them into the artist’s process for creating his art encouraged them to participate fully and palpably in that creative process as well. In his landscape painting, Bierstadt was “creating a world that no one’s ever seen before…taking a picture in his mind...he’s got to communicate to others what he’s seeing in front of him...if you as a young artist want to communicate something, how do you do it?”

This question continues to be of importance for the more seasoned young artists in high school. The CRW’s sections the artist’s inspiration helped the high school graphic arts teacher with one of her central goals for her students: “how are you going to visually communicate with your audience? Whether you are using words or not using words, or symbols, what are you trying to communicate, and what’s coming across to your audience.” To that end, she loved the “blurs” about the artist’s inspiration in every lesson plan – “how were they inspired, what was the basis for them creating this. I think the students need that, especially at the high school level, they need to know [the artist] just took this random idea and ran with it, they can do the same thing.” It gives them
license to explore the same kind of creative process modeled by a website artist as they endeavor to communicate their own ideas and inspirations to their audiences through their own chosen medium.

**Integration of Art into Curriculum.** As the reading specialist was quoted saying above, students “really express themselves phenomenally through art, which is why I want to have more of it.” All of the interviewed teachers would be delighted to have more art in school curricula, and a number of them had strong opinions about the desirability of integrating art into other areas of the curriculum beyond just art class, in order to develop students’ creative and critical abilities. They all seemed to share the view of the reading specialist that “art can be infused into any curriculum.”

A few of the art teachers felt that, while integration of art with other curricular areas might be accepted as a good thing by their districts, the onus was generally on them to bring writing, math, and history into their art classrooms in order to accomplish this goal. The alternative middle school art teacher applauded that her district “had the foresight to see that art is a valuable piece of this program” when developing the new middle school; she acknowledges, however, that “I love the people that I work with, but I know far more about language arts, social studies, and math than what they know about what I do.” She is the one who has to advocate that art be included in social studies and other humanities projects, while she consistently includes historical, language arts, even math and science elements (“the geometry teacher was shocked that I was teaching about scale!”) in her art lessons. Another art teacher routinely includes writing assignments in her art classes, and wondered why social studies teachers were reluctant to include art-related assignments in theirs.

One reason for this apparent asymmetry has to do with the rigidity of other subject matter areas’ “standards and lockstep curriculum,” as the social studies teacher put it. Indeed, the reading specialist – a huge fan of using art in the reading curriculum – rued that her reading program allowed so little

leeway for introducing more things like the arts…, because I think that reading especially is very difficult if you don’t have interesting things to do, and a big problem with these kids is that they don’t know how to answer the “why” question, and I think art is a fantastic medium through which to do that….this is a fantastic curriculum for teaching them how to read and for teaching the basics, the fundamentals…but I’d love for there to be more room…for them to express themselves – how does it make you feel…draw it….

In the opinion of the social studies teacher, “people don’t value art and music in the same way like math and science, and that’s something that desperately needs to change, to see art and music at the same level as language arts, as science, as math.” In his view, “if there’s anywhere that the arts are a natural fit into the curriculum, it is most certainly in the social sciences.” (He has himself often done so on his own initiative, noting that “art and literature were a huge aspect” of his world history classes.) Given the magnitude of the challenges facing the United States in the world today, he believes that the schools, as
part of their civic education function, play a crucial role in educating children to be creative, out-of-the-box problem-solvers. Incorporating art into the curriculum not only can foster this kind of creativity, but can also teach students about the value of political expression and participation to the democratic process. But in the face of the growing focus on standards and the “fundamentals,” combined with increasingly dire budget constraints, public school arts programs are being either cut or allowed to decline. This teacher passionately advocates that focus on the arts need to be maintained and intensified as a vital component of today’s public school education, because “art and music are fundamental, essential to our democracy.”

* * *

CRW PROPOSED IMPROVEMENTS AND TEACHERS’ SUGGESTIONS

In their interviews, the teachers were asked about four proposed improvements or new features to the CRW being contemplated by DAM staff, and about any suggestions for improvement of their own that they might have.

The four new features being contemplated by DAM were: (a) an on-line tutorial; (b) a user area; (c) a glossary of art terms; and (d) an interactive map showing, among other things, the countries of origin of the art objects on the CRW. The teachers were generally receptive to all four features. The on-line tutorial was attractive to those teachers who were having some technical difficulties with site (such as being able to make images larger, for example). The user area provoked indifference from one teacher – she would rather keep her often used files on her own server – but was more enthusiastically received by others who hoped to continue and enhance their use of the website from year to year. The glossary proved most popular to the less-experienced teachers and the non-art teachers, whose day-to-day familiarity with art terms is less pronounced; even one of the more experienced art teachers said she would use a glossary, however, to help her feel more comfortable with types of art with which she had less of a background. The interactive map inspired the most enthusiasm of all of the proposed improvements. All the teachers thought their students would love it, and some believed it would be a draw for non-art teachers to use the site.

The suggestions proffered by the teachers for website improvement fall into four categories: (a) how better to recruit teachers to use the site; (b) technology issues; (c) suggestions relating to the art objects and lesson plans; (d) standards issues.

Recruitment. The art teachers were all enthusiastic about the DAM’s efforts to introduce them to the CRW through organized in service professional development sessions. They believed, however, that no one else (that is, teachers in other departments) knew about the site, and felt flummoxed in their personal efforts (through staff meetings, emails to colleagues, etc.) to get non-art teachers on board. A few teachers suggested that the DAM locate the unit or subject matter coordinators for the different districts (for example, the district social studies coordinator), and try to arrange in services focused upon the needs of those subject matter areas that the website might help meet. “Like we
have the district arts study team. There must be a social studies district team.” A suggestion was made for DAM to contact the Colorado Council of Social Studies Teachers, which has periodic conferences: “I’d love to see the DAM at those conferences saying, hey, here’s what we have to offer.” It was believed that there is a comparable language arts council as well, which puts on “little conferences” at which DAM might present the CRW. The technology specialist noted that a group called “C for T” (Computers for Teachers) holds a conference once or twice a year at which DAM staff could present the website, where “teachers come and learn about new things to use and try.” Other recruitment suggestions included expanding the reach of emails and postcard to teachers beyond existing mailing lists. And the social studies teacher made a fervent plea to reinstate the teachers’ fairs, as an additional mechanism for disseminating information about the CRW.

**Technology Issues.** The biggest technology issue involved difficulties experienced with enlarging the size of the art objects’ images and printing them out. Three teachers expressed frustration at not being able to enlarge certain images (the “Phantom Tattoo,” the sand mandala, and “Better Homes, Better Gardens”) to screen size (while another teacher, using the Bierstadt landscape, professed no problem with doing so). Two teachers found the quality of the printed out versions of the images to be of low quality or too “pixilated” – an unfortunate thing, since one wanted to be able to print the ones from which she had taught (Remington’s “The Cheyenne” and the Ogundipe painting) and hang them up in her classroom as a continuing reminder of successful lessons. The teachers’ suggestion was that the technical problems be fixed, so that images could easily be enlarged to screen size, and the printouts could be higher quality.

The latter is especially pressing for some schools, given the unevenness of the availability of technology across the board. While for some teachers, the ubiquitous presence of technology (student computers, LCD projectors, smart screens, etc.) made the use of the CRW a real plus in their districts – with administrators pleased to see the expensive technology so well used – for other teachers, the unavailability of such technology made printing out hard copies of the art objects a necessity. Without high quality printouts, using the CRW in the technology-challenged classrooms becomes difficult.

**Art Objects and Lesson Plans.** Two teachers suggested that the website “get more images up.” One of them would disappointed that the CRW did not have something more like “galleries” of types of paintings, representing different parts of the world (an Asian gallery, for instance) or different genres (a gallery of “flower pictures,” for example). The other was looking for more of the museum’s collection to be represented on the website. She also suggested, since she was trying to convince her elementary school students to get their parents to take them to the DAM on the weekends, that for permanent pieces of the collection featured on the CRW, the location in the Museum (the floor, the building) be added to the website: “if that is listed here, then I could tell the kids this is where you go.”

A couple of teachers independently made the suggestion that the lesson plans contain links to video clips related to the art objects – the video of the monks making the
mandala, for example – for use in their classrooms. One noted that her attempts to find her own videos often resulted in films that were way too long, and that editing them down for the classroom lesson was beyond time-consuming; she observed that the museum has much shorter clips peppered through its exhibits, and incorporating them into the website lesson plans would be very useful (“another funnel in the ear to pour stuff in their heads,” as she put it).

One teacher recommended that the site be opened up so that examples of student work arising from use of the lesson plans could be posted. She said teachers would find it valuable to see what kind of work product had emerged from a particular lesson or object as they made their decisions as to which ones to use in their own classrooms; and students would, of course, be gratified to see their own work posted. Another teacher suggested the site provide a forum in which teachers could contribute their own lesson plans for particular images or their own lesson plan modifications, and to share/exchange other information about what they tried in their classrooms as they used the CRW.

Standards. Two recommendations, referenced earlier, were made as to the content standards set out in the lesson plan. One was that the standards could be enhanced by the inclusion of rubrics or goals for evaluating student performance in connection with the lesson plans. The other was the fervent plea for social science content standards to be added; the caveat for that, however, is that the Colorado social studies content standards are currently undergoing revisions, so that federal standards (NAEP, for example) might have to be the basis for such standards, if included.

SUMMARY & INTERPRETATION

The broad range of teachers who filled out the on-line survey were overwhelming positive about their experience with the CRW, which speaks well for the thought and effort that went into designing lesson plans and the website. Only early childhood teachers expressed difficulty with the website, but there were only four such teachers in the survey. Nevertheless, DAM might consider how the site could be made more appealing or useful to these teachers. Although only one-fifth of teachers made use of the lesson plans, those that did found them very satisfying. The time of year that the survey was conducted might have had something to do with the frequency of use. Teachers were preparing for the state competency exams at about the same time the survey was conducted. Also, many teachers were on the CRW to browse rather than to find a lesson plan.

Data from eight interviews supported and enriched the information from the survey. Teachers at all student grade levels praised the ease of use and fit of the material for their classrooms and pointed out that such material is unavailable to them from any other resource. They noted that a busy teacher needs a one-stop shopping site and DAM provides this.
Those teachers who used the lesson plans highlighted their thoroughness, interest level, and match with state standards. They emphasized the high level of student engagement in the lessons. They also commented that the art lessons helped them reach students who usually struggle with standard academic lessons. Use of art both enhances student creativity and teaches students different ways to express their political and social beliefs.

Teachers offered many specific suggestions for website improvement that fell into four categories:

1. **Recruitment of teachers to use CRW:** DAM should
   a. Identify subject matter coordinators in school districts (for language arts, social studies, etc.), and arrange teacher in-services on CRW similar to those for art teachers, but with a focus upon the needs of the particular subject matter area
   b. Contact Colorado Council for Social Studies Teachers, Computers for Teachers, and other groups/associations that hold conferences for teachers in particular subject matter areas, and get on their conference agendas to present CRW
   c. Expand emails and postcard mailings to teachers beyond existing mailing lists
   d. Reinstate the annual Teachers’ Fairs as a potential vehicle for disseminating information about CRW

2. **Technology issues:** DAM should
   a. Fix whatever the technological glitch is that may be preventing teachers from enlarging art images to full-screen size
   b. Improve the quality of the printed out art images – crucial to those teachers from less affluent schools lacking the technology to project the images

3. **Art Objects and Lesson Plans:** DAM should
   a. “Get more images up” – possibly in the form of galleries representing different parts of the world or different genres
   b. List on the website the locations of featured art objects in the museum (the wing and the floor), so that students can more easily visit the objects that they have studied
   c. Include links to video clips related to the art objects (e.g., the monks making the mandalas); many such clips are already part of the exhibits at the DAM
   d. Open up the site for postings of student work arising from the lesson plans
   e. Create an on-line forum for teachers to share/exchange information about their use of the CRW’s art objects and lesson plans

4. **Standards:** DAM should
   a. Develop and include rubrics or goals for evaluating student performance in connection with the lesson plans
b. Include social science standards in the lesson plans, based upon the federal NAEP social studies standards
Appendix A

Creativity Resource Evaluation—Online Survey FINAL

Please be sure to visit the Creativity Resource website before completing the survey. Click here to explore the site to find images, lesson plans and creative classroom ideas!

This survey is being administered and analyzed by Quality Evaluation Designs, an independent consulting company who will help ensure that we are providing valuable resources to teachers.

The survey consists of 23 questions and takes about 10-15 minutes to complete. Remember to leave us your contact information at the end of the survey for a chance to win a teacher membership -- a $45 value -- good for one year.

Page 1: Information about You

1. How did you hear about the website? (Check all that apply.)
   Information received when scheduling a school field trip
   Teacher Art Mail
   link from the Denver Art Museum website
   Word of mouth
   other—please list

2. What distance in miles, do you live from Denver?
   0-15
   16-30
   31-45
   45-60
   61+

3. How long have you been in the education/teaching profession?
   Less than 1 year
   1-3 years
   4-6 years
   7-9 years
   10-20 years
   over 20 years
   I'm not in the teaching field – please list your field
4. In what type of school do you teach?
   - Public; Private/Parochial
   - Home-school
   - After-school
   - College/University
   - Other—please list

5. In what school district do you now teach?
   - Outside Colorado
   - CO Districts listed out

6. What grade level do you currently work with? (Check all that apply.)
   - Early Childhood
   - Elementary
   - Middle School
   - High School
   - Other: _____

7. What do you currently teach? (Check all that apply.)
   - Classroom Generalist
   - English Language Arts
   - Foreign Language
   - Mathematics
   - Science
   - Social Studies
   - Visual Arts
   - Music
   - Other—please list

8. How often do you give assignments to students that require them to find information on the Internet?
   - once a day or more
   - every other day
   - 2-3 times/week
   - once a week
   - once a month
   - 2-3 times/month
   - rarely use
   - never

9. What time of internet access do you have in the classroom?
   - Broadband/DSL
   - Dial-up
None
Don't know

10. How do you typically use art images in the classroom? (Check all that apply.)
   color print-outs
   black and white print-outs
   slide projector
   overhead projector
   LCD projector
   Interactive Whiteboard
   individual student computers
   I have never used art images in my classroom
   Other—Please list

Page 3: General Usability

11. Choose a number for each statement that best applies to your experience with the Creativity Resource website.
   Rating Scale: 1=Not at all…8=Very Much; N/A
   - It was easy to find materials appropriate for my grade level.
   - It was easy to find materials appropriate for my subject area.
   - It was easy to find information about the art objects.
   - It was easy to find materials of interest to me personally.
   - It will be easy to use the art images in the classroom.

Page 4: Art Information

The following two questions pertain to the art information included in the Who Made It? What Inspired It? Things to Look For? sections. To refresh your memory of these sections, we've included examples below.

![Art Information Example](image-url)
12. After looking at the information about the artworks in the Who Made It?, What Inspired It?, Things to Look For and Resources sections, do you feel more confident about talking about the artwork in the classroom?

yes
no
13. What other types of information would you find useful?

**Page 5: Quick Ideas**

The following question pertains to the Quick Ideas sections found on the website. To refresh your memory, we've included an example below.

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Quick Ideas

• When Kevin Red Star creates a painting, he often looks to multiple different sources for inspiration. He finds names in historic documents, looks at old photographs, and attends Crow ceremonies where he is inspired by living people. Have your students create a portrait using elements from different sources. For example, they could bring in a family photograph and insert an image of a person from a newspaper. Students can draw, paint, collage, or use a combination of methods.

• Have students imagine that this woman is an ancestor that has come to visit them. Write a dialogue imagining the stories she would tell. What time period does she come from? What was her life like? What would she have to say about our lives today?

• Discuss the woman's posture. What does it say about her mood? As a class, explore different postures and how they reflect mood and personality. Have students choose a posture and have the class guess what mood they're trying to portray.

• In Knows Her Medicine, Kevin Red Star exaggerated the size of the woman's hands, giving her a monumental presence. "I know proportions and anatomy," he explains, "and when you know them, then you are free to distort them." Have students create a self-portrait and choose a feature to exaggerate or distort. Ask them to explain why they chose that feature and what it signifies.
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14. Choose a number for each statement that best applies to your experience with the Quick Ideas.

**Rating Scale: 1=Strongly Disagree…8=Strongly Agree; N/A**

- I can imagine myself using some of the Quick Ideas in the classroom.
- The Denver Art Museum has provided sufficient information for me to take the idea and turn it into a classroom activity.

**Page 6: Lesson Plans**

The following questions pertain to the lesson plans found on the website. To refresh your memory, we've included an example below.
15. Have you used a lesson plan from the Creativity Resource website (or a revised version of it) in your classroom?

yes

no

[If user responds “no,” he or she jumps to Page 8: Creativity.]

Page 7: Lesson Plans Continued

16. Choose a number for each statement that best applies to your experience with the Full Lesson Plans.

Rating Scale: 1=Strongly Disagree…8=Strongly Agree; N/A

- The Denver Art Museum provided sufficient information to connect the lesson plans with Colorado Content Standards.
- I feel able to make changes to lesson plans to suit my customized needs.

17. How would you describe your use of the Creativity Resource lesson plan?

- I used the lesson plan as is, and did not make any changes at all.
- I made minor adjustments to the lesson plan before using it in the classroom.
- I made major adjustments to the lesson plan before using it in the classroom.
18. Please comment on your students’ engagement throughout the Creativity Resource lesson plan.

How would you compare your students’ engagement in the Creativity Resource lesson plan with their previous engagement in your lessons before using this site? Rating Scale: 1=Less Engaged…3=The Same…5=Much More Engaged

Page 8: Creativity
19. Choose a number for each statement that best applies to your experience using the Creativity Resource website. Rating Scale: 1=Not at All…8=Very Much
   ▪ I found out something new about creativity.
   ▪ I thought about creativity in a new way.
   ▪ I want to know more about creativity and creative thinking.
   ▪ I am interested in attending a workshop about creativity.

20. Please leave any additional comments below. Your feedback is important to us!

21. Give us your contact information and be entered in our bi-weekly drawing for a teacher membership -- a $45 value -- good for one year!

22. Would you like to be added to our Teacher ArtMail list?
    yes
    no

23. We might want to contact you in order to better understand your experience with Creativity Resource. Would you be willing to participate in a short interview?
    yes
    no
Appendix B

Interview Protocol for Creativity Website Users/Teachers

(Pre-interview request: ask teacher to bring with him/her 2 or 3 pieces of student work product that came out of the lesson using the website lesson plan/art object)

I. Introductions

   A. Who is the interviewer

   B. What is the purpose of the interview

   C. Groundrules (consent, recording, transcripts, get up whenever you want, etc.)

   D. Who is the interviewee – tell me about yourself -- background in teaching, family, etc. Class level you teach at now; future plans and dreams

   E. Other icebreaking

II. How did you get to the website?

   A. What were you looking for when you logged on?

   B. How did it catch your eye?

   C. What kept you there?

   D. How did you think it might meet the purpose for which you began your search?
III. Tell me a story: what did you do on the website?

   A. Step-by-step: walk me through what you did and when you did it. Describe your travel through the website.

   B. How did you get to the point of deciding that you would use it in your classroom? What swayed you?

   C. Which art object/lesson plan did you choose? How come? Walk me through that process.

IV. Tell me another story: what did you do with the object/lesson plan from the website?

   A. What was your teaching “objective” for using it?

   B. If you hadn’t found it on the website, what had you been thinking of doing instead to meet that objective?

   C. What did you expect to get out of using it?

   D. Describe/walk me through your experience of using it in the classroom?

      1. What did you do? What did the kids do? How engaged, bored, happy, sad, etc. were they? Fun or chore?

         a) Did you focus more on the art object or on carrying out the lesson plan? Why, and how did that work for you?

      2. Ask about the student work product that interviewee brought to interview – describe how that fit in, the process that produced it.

      3. What kind of learning do you think went on?

      4. How well did it meet your objective? Your expectations?

      5. How might that be different from what you would have done without the website?

V. Overall impressions

   A. Like or dislike the experience?

   B. How did it help your teaching?
C. Overall, what did the students get out of it?

1. language arts? Did it help their writing process? (Look to work product to help this conversation along)

2. appreciation for art object?
   
   a) Did students get a sense of why the art object worked/didn’t work for them? The artist’s process? What inspired the artist to make the object?

D. What would you do next time?

1. Would you use the site again?

2. If so, what might you do differently? If not, why not?

3. Any suggestions about things that DAM might change/revise on the website?

4. Here is a list of additions/changes that DAM is thinking of:
   
   a) online tutorial

   b) user area

   c) glossary of art terms

   d) interactive map

5. What do you think of them?

E. Anything else you’d like to say?

VI. Thanks and next steps