

THIS ISSUE:

Collaborative
Web Projects

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SERVE

Improving Learning through
Research & Development

Collaborative Web Projects Abound

No question about it! The Internet is rich in resources for the classroom, and one of the most beneficial resources for students is the collaborative Web project. These online projects range from very structured activities, in which students share collected data, to full units of study correlated to state or local standards and designed by the participants.

During the 2001–2002 school year, collaborative Web projects were a means of making international connections. President George Bush and Secretary of Education Rod Paige highlighted “Friendship Through Education,” a consortium of groups brought together by iEARN (International Education and Research Network) to facilitate expanded links between students from the United States and students in countries with Muslim populations. The www.friendshipthrougheducation.org website links students through letters, e-mails, collaborations, and exchanges to build an understanding between nations and to help each learn more about the other.

According to the Friendship Through Education website, their projects include the following:

♦ **Comfort Quilts Project:** Students, ages 5–18, make quilts using fabric squares on which they have drawn smiley faces, to

share with other children who need comforting. The project was created in response to the needs of children receiving medical, hospital, or clinic care; experiencing the devastating effects of natural disasters; and in transition, crisis, or displacement from their homes.

♦ **Kids Share Hope:** The kids of the Global Schoolhouse collaborate by sharing their messages of hope, support, and condolences in response to the September 11, 2001 “Attack on America” tragedy. Students submit scanned drawings and digital photos that portray a feeling of hope and support. These messages and images are compiled and shared with school children directly impacted by this disastrous act of terrorism.

♦ **Global Art:** Students, primarily ages 5–12, create and exchange artwork and writing with several other participating schools on the theme, ‘A Sense of Caring,’ respond to one another’s artwork/writing through e-mail conversations, and display the Sense of Caring Artwork with descriptive writing and e-mail messages from participating schools/classes/organizations in a Global Art Show at their schools.

Whether the collaborative online project has an international

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Friendship Through Education
 a resource network for schools wishing to interact with schools internationally.
www.iearn.org

Interact Resources About Us

Participating Organizations
 NetAid

From The Press
 Linking students through letters, emails, collaboration and exchanges to build an understanding between nations and to help us learn more about each other.

Interact!

Current Interactions
SOS! FTE's Schools Outfitting Schools Project
AMERICAN KIDS CAN HELP CHILDREN IN AFGHANISTAN GET BACK TO SCHOOL!

Join Friendship Through Education partners in helping to equip schools in Afghanistan with the educational materials they need to re-open classrooms.

In conjunction with the official reopening of school in Afghanistan, The Friendship Through Education (FTE) Consortium and the U.S. Fund for UNICEF launched the Schools Outfitting Schools Campaign (SOS) to support Afghan students and teachers. After a long period of conflict, schools will open doors on March 23, making schooling available to children throughout Afghanistan. This historical event will also make education available to girls, who previously were not allowed to attend school.

Participate **Read more**

"Friendship Through Education plays an important role in connecting children to their peers throughout the world in friendship. The steps these organizations have taken to support a dialogue between different cultures could not have come at a more crucial time in our history."
 - Queen Noor of Jordan

Comfort Quilts
 The students of the **Comfort Quilts Project** make quilts to share with other children who need comforting. This year, they made a comfort quilt for a visiting Pakistani teacher to take to the Pediatric Center at a hospital in Karachi, Pakistan.

Kids Share Hope
 Kids **collaborate** by sharing their messages of hope, support and condolences in response to the September 11, 2001 "Attack on America" tragedy. Groups of kids from Uzbekistan sent images of hope to their friends in the United States.

theme or a narrow curricular focus, teachers and students join with others to share data or ideas, draw conclusions, or develop a product. Through these projects, the world becomes smaller, the classroom becomes multi-dimensional, and learning becomes authentic.

If you have not had your class participate in a collaborative online project, now is the time to begin. The articles in this issue of *NewsWire* address several projects to join, sites to check for project listings, tips on developing and participating in online projects, and experiences others have had in developing or managing collaborative online projects. Perhaps they will be just the sparks you need to get started! ♦

iEARN: Offering Projects Since 1988

Recognized as one of the first groups to offer students and teachers opportunities for online collaborative projects, iEARN (International Educational and Research Network) at

www.iearn.org has an extensive list of online projects. All iEARN projects focus on providing the following:

- ♦ An inclusive and culturally diverse community
- ♦ A safe and structured environment in which students can communicate
- ♦ An opportunity to apply knowledge in service-learning projects
- ♦ A community of educators and learners making a difference as part of the educational process

The projects are organized in three major curricular groups:

- ♦ Creative/Language Arts
- ♦ Science/Environment/Math
- ♦ Social Studies

Participants have the option of participating in structured online projects that are ready to start (See www.iearn.org/projects/index.html) or to work with other classrooms to design and implement projects specific to a curricular area or classroom need.

In addition to online projects, iEARN provides interactive forums, news, professional development opportunities, and an extensive database of members and projects.

Membership in iEARN is school-based. Once a school joins iEARN, all teachers and students in that school have access to all network resources. (2001-2002 school-year prices were \$100/teacher or \$280/school.)

Operation RubyThroat: The Hummingbird Project



A classroom teacher commented, "Hummingbirds are wonderful tools to excite students about learning." This idea is the basic premise of "Operation RubyThroat: The Hummingbird Project," an innovative, international, cross-disciplinary initiative through which students, teachers, and others collaborate to study the behavior and distribution of Ruby-Throated Hummingbirds (*Archilochus colubris*).



The project is an outreach endeavor of the Hilton Pond Center for Piedmont Natural History, a 501(c)(3) non-profit education and research site near York, South Carolina.

Since its founding in 1982, the Hilton Pond Center has been the most productive bird-banding station in the Carolinas and one of the most active in the southeastern United States. It is also a popular field trip location for K-12 students, education interns, teachers, college classes, conservation groups, garden clubs, and civic organizations from across the Southeast and beyond. The extensive education and research work of the Center is described in words and photos at www.hiltonpond.org.

Bill Hilton, Jr., founder and executive director of the Center, is the facility's primary research scientist. He is licensed by the federal Bird Banding Laboratory to capture wild birds, place bands on their legs, and release them unharmed.

"Banding is one of the most important tools in helping us learn about bird migration," Hilton said, "and about other things we wouldn't know about birds, including longevity, site fidelity, and population dynamics. But bird banding is also a useful educational tool, and nothing I've ever done with students

excites them more than catching a bird, banding it, and releasing it back into the wild. Learners of all ages can benefit from banding hummingbirds, and I see working with these tiny feathered creatures as the ultimate bird-banding experience."

It was this dual interest in bird banding and hummingbirds that gave Hilton the idea for "Operation RubyThroat: The Hummingbird Project," a unique initiative that challenges and connects student observers through the Internet. In Operation RubyThroat, participants observe the Ruby-Throated Hummingbird in their home countries and share information with peers across North and Central America. Students make observations on such hummingbird behaviors as early arrival dates during spring migration, numbers of visits to hummingbird feeders, and species of native and cultivated flowers that are visited by hummingbirds. Data are submitted electronically via online forms to the Hilton Pond Center, which then assists participants in disseminating write-ups of their work through scientific and education publications and/or the Operation RubyThroat website at

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www.rubythroat.org. Participants learn about natural history; reinforce skills in math, science, writing, geography, art, language, and other disciplines; and gain a deeper understanding of the need for environmental cooperation among people of the Americas.

In March 2002, Operation RubyThroat affiliated with The GLOBE Program (www.globe.gov), an online project that allows students at GLOBE-certified schools to submit hummingbird data and correlate them with traditional GLOBE observations of atmosphere/climate, hydrology, soils, land cover, and phenology. Non-GLOBE schools may follow the same hummingbird observation protocols outlined for GLOBE and submit data directly to Operation RubyThroat via data@rubythroat.org.

Because hummingbirds tolerate humans and are drawn to feeders and flower gardens, these tiny birds are ideal subjects for observation and research. In addition, the general mystique of hummingbirds makes them a stimulating topic for study and discussion among children and adults of all ages. Operation RubyThroat capitalizes on such interest to raise awareness in its participants of natural history and of the interconnectedness—and mutual conservation needs—of countries in the Western Hemisphere.

In Year One (2001–2002 academic year), participants in Operation RubyThroat were located in the United States, primarily in the Carolinas and New York. In Year Two, the project will expand to include participants in 38 states and Washington D.C., and in Year Three to Canada, Mexico, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama—everywhere Ruby-Throated Hummingbirds regularly occur.

Although many teacher/student groups are using Operation RubyThroat to enhance science learning, Hilton is quick to point out that this is “not just a science project.” Operation RubyThroat is, by design, a cross-curricular project that encourages teachers to incorporate

science into other disciplines and vice versa. For example, when a science class studies hummingbird migration, students also learn about geography. Or, when science students generate graphs showing how many times a hummingbird visits a feeder in a day, students master math and computer skills. And when an art teacher has students observe hummingbirds and make sketches, her students will learn about hummingbird morphology, as will drama students who write and perform a play based on hummingbird behavior. In keeping with current trends in education, Operation RubyThroat activities are correlated with Howard Gardner’s theory of “Multiple Intelligences.”

One of the most compelling aspects of Operation RubyThroat principles is that they can be used with students at any grade level. Students in elementary school might learn to make simple observations about hummingbirds, while advanced high school biology students might conduct hummingbird research projects that are worthy of publication. Teachers who field-tested Operation RubyThroat in the 2000–2001 academic year reported that project principles excite students about science, yield demonstrable improvement in science learning, and “align with state and local curriculum standards.”

The main goals of Operation RubyThroat are the following “Seven E’s”:

- ◆ Enhance K–12 learning in science, particularly conservation and natural history
- ◆ Expand student use of technology, especially in the natural sciences
- ◆ Excite students about field research and potential careers in ecology and related areas
- ◆ Emphasize integration of natural science learning into all science disciplines, as well as into arts and humanities
- ◆ Enlighten students about environmental factors that affect hummingbirds (and humans)
- ◆ Encourage international understanding by using technology to

build student and teacher networks in the Western Hemisphere

- ◆ Establish an exemplary program that serves as a model for other cross-disciplinary projects that focus on new topics

Operation RubyThroat also leads to local conservation efforts through which students and teachers protect or create schoolyard or backyard habitats used by hummingbirds and other organisms.

Hilton Pond Center has received more than \$80,000 in grants, corporate donations, and individual gifts to begin implementing Operation RubyThroat. Donors include The Christensen Fund (\$35,000), National Fish & Wildlife

Foundation and Phillips Petroleum Bird Conservation Fund (\$17,500 each), Foundation for the Carolinas Impact Fund (\$6,000), and Perky-Pet Corporation (\$2,000). These funds will be used in Year One primarily to recruit teacher/student groups from the Carolinas and New York, but participants from any state or country in which Ruby-throated Hummingbirds occur are welcome.

Details about how to join this exciting Internet-based learning initiative are outlined on the Operation RubyThroat website at www.rubythroat.org. Teachers also may contact Hilton Pond Center via e-mail at info@rubythroat.org for more information. ◆



Follow the Polar Huskies!

For several years, “snow dogs” have been seen in many classrooms around the United States. This is because of the NOMADS Adventure & Education Online Classroom Expeditions.

NOMADS Adventure & Education (www.polarhusky.com) has combined adventure with classroom education since 1992, when founders Paul Pregont and Mille Porsild worked with world-renowned explorer and educator Will Steger as part of the highly acclaimed International Arctic Project (1991–1995) on a project that brought global awareness to the importance of Arctic Regions. The first “reports” from the trail consisted of less than ten words, sent from a 2-by-4-foot computer powered by a hand-cranked generator! NOMADS Adventure & Education, Inc. was legally incorporated in 1996 to make the adventures available to more schools.

The spring 2002 six-week Pimagihowin (translated “Living From the Land”) expedition began February 15, 2002. The expedition explored the wilderness and traveled ancient Native Ojib-Cree paths of northern Ontario by dogsled with powerful polar huskies, as well as by canoe and on foot. The journey was filled with unique scientific and cultural learning opportunities.

The NOMADS project offers an interactive website and a “gated” Web community with a regular collaboration forum, moderated chats, digital labs, video and audio broadcasts from the trail, and an extensive resource database. Comprehensive classroom materials and online resources correlated to U.S. National Education Standards are prepared and sent to each school participating in the expedition. Units within the Curriculum and Activity Guides are designed as multidisciplinary, hands-on, mind-engaging activities that relate to multiple intelligences and learning styles.

Up to 3,000 classrooms may subscribe to each seasonal Polar Husky adventure for \$99 each; the cost for an entire school is \$299. If you are seeking a collaborative Web project that is structured in accordance with different learning levels for K–12, then check out www.polarhusky.com for the next seasonal project!





Log In Your Alabama Roadkill!

Teachers in the Mountain Brook City Schools (Mountain Brook, AL) are looking for Alabama Roadkill! As part of their summer Annual Technology Academy, Mountain Brook City Schools (MBCS) participants develop technology-enriched units that correlate with the local curriculum framework. The participants are expected to create and maintain their web pages. One of the projects, Roadkill, is a good example of a collaborative Web project. Even though it is included in the sixth grade listing, author Pam Baugh indicates that the project is appropriate for any age. However, anyone who has worked with middle-school students will recognize that this project will be an instant hit for grades 6–8!

The MBCS project is organized into two major sections: Questions and Performance Tasks/Projects. It uses the same goal as a national RoadKill Project: to involve students and teachers with scientific monitoring of an environmental parameter, accomplished by using the Internet to record findings and compare the findings with those of other schools participating in the project.

The MBCS Roadkill site includes a Warmup-Roadkill in Alabama worksheet and a RoadKill Data Form. On the Warmup worksheet, students complete the KWL chart—What we Know/What we Want to know/What we Learned and make predictions

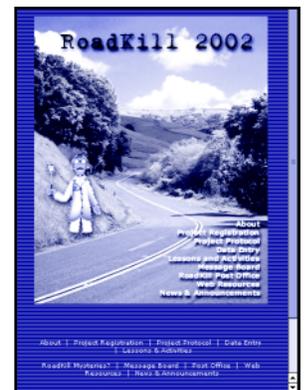
about which animals they might find and under what conditions. On the RoadKill Data Form at www.mtnbrook.k12.al.us/academy/6thgrade/roadkill/InteractiveRKill.html students enter their roadkill information and respond to questions about the conditions (weather, lunar phase, and temperature) and location (longitude, latitude, and type of road) that affect animals killed on Alabama roads. Using this form, students submit their data to the MBCS Roadkill web collection. They also can submit their findings to a national project, Roadkill 2001, at www.edutel.org/roadkill/alt_index.html. In addition to submitting their findings to the Web, students graph their findings based on the data from the RoadKill Data Form.

Note: The national Roadkill Project began with a National Science Foundation grant called Environet, awarded to Simmons College in Boston, but the project has been moved from the Simmons server (still listed on many sites as the link to the Roadkill Project) to the EduTel Communications, Inc. server at www.edutel.org/roadkill/alt_index.html.

If you search the web, you will find several spin-offs or customizations. For instance, a great example of a “make it fit your area” version is the Pennsylvania site at www.eh.beth.k12.pa.us/monagacci/details.html. Take a look at the MBCS Roadkill project and consider creating a similar project for your locale. Our other five SEIR♦TEC states—Georgia, North Carolina, Mississippi, South Carolina, and Florida—are also rich in roadkill! ♦

The image shows a web form titled "RoadKill in Alabama". It contains several sections for data entry:

- Introduction: "We have our own roadkill for that! There are lots of animals in Alabama. We live in a state in our animal state to be road. We would love to compare with a class from another part of the country. Let us hear from you!"
- Directions: "Type your answers on this page and submit!"
- Form fields: Name, State, Town, School, Date, Road/Intersection, Latitude/Longitude, Time of Day, Weather, Temperature, Road Type, Speed Limit, and Animal Type.
- Instructions: "Click on the road/intersection or location where you found your roadkill. Find the location of your roadkill on the map of Alabama." and "Click on the animal type of your roadkill." and "Click on the animal type of your roadkill." and "Click on the animal type of your roadkill."
- Footer: "RoadKill 2001" and "www.edutel.org/roadkill/alt_index.html"





Bringing the Global Grocery List Project Work to the Classroom

By David Warlick

Note: One of the longest-running online projects is the Global Grocery List, developed by David Warlick, who has agreed to describe his experience in posting and managing a collaborative Web project since 1987. We hope you enjoy his recollections of a project that now draws participation nationally and reaches international classrooms.

Students share local grocery prices to build a growing table of data to be used in social studies, science, health, mathematics, and other disciplines.

Project-based learning is a difficult concept to describe because it is a nearly impossible thing to define. There are probably as many different definitions of instructional projects as there are instructional projects. Some are very broad in focus, and others are narrow. Some projects apply to a specific instructional standard, while others integrate a large number of skills and content together. Some projects require telecommunications, and others can be done the old fashioned way—with books. Some projects are complex in implementation; others simple. The Global Grocery List project is the simple type.

Begun in 1987 as an e-mail project, Global Grocery List (GGL) is the second-oldest continuing online project on the Internet. The project started in Person County, North Carolina, where I was the Director of Technology and first asked the question, “How much do groceries cost in your town?” That question was sent out to locations from Miller, Australia, to Dublin, Ireland, and points between over the FrEdMail network. At that time, Person County Schools ran one of the 37 North Carolina nodes to the network, and when the e-mail message went out with a grocery list and the task, students in towns and cities around half of the globe went to their grocery stores, collected prices, averaged the prices when they returned to their classrooms, and sent their prices, via e-mail, back to me. Teachers who sent in price lists were added to a mailing list and received a copy of all prices submitted from that point on.

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Typically, teachers would keep a posterboard chart attached to the wall in their classrooms. As new price lists would arrive in their e-mail boxes, they would have students record the new location and its prices on the chart. Some teachers also kept databases of prices using the original AppleWorks, on Apple II computers. The growing table of prices could then be used throughout the year to demonstrate concepts of social studies (transportation), science (climate), or mathematics (projecting trends or converting foreign currency). In the first year, a health teacher in Montana had his students calculate the best place to get Vitamin C or Vitamin A.

After learning a little HTML and moving to the North Carolina State Department of Public Instruction, I transferred the Global Grocery List project to the Web. It was a static webpage that included an explanation of the project and the grocery list. It also included all incoming prices, which was a giant improvement since any teacher with access to the Web had access to all submitted prices.

In 1996, after I left the Department of Public Instruction and set up office as a consultant, I began to learn how to program webpages to run off a database. The first project to benefit from this new technique was Global Grocery List. Instead of sending their prices to me by e-mail, after which I had to enter them by hand into a webpage, teachers could load a Web form and enter their prices directly onto a webpage. The prices were then added to a database (originally FileMaker Pro and now MySQL) where they could be accessed and printed on price-report webpages at any time.

Today, GGL will accept prices based on metric or empirical units, in any currency listed on the OANDA currency exchange site, and automatically convert prices to a common value. You can access prices in any currency for any year between 1995 and 2002 and list any of the commodities in the price list. The prices can be listed in tables for printing or as a tab-delimited file that can be imported into a spreadsheet.

Recently, teachers have begun making their own GGL websites. Here are a few:

- ◆ A lesson description by Ms. Mindy Hensen of Cedar Valley Middle School, posted on the Text Center for Educational Technology website: www.tcet.unt.edu
- ◆ Ms. K. Johnson, of Oakridge Elementary School, added a GGL page to her classroom website: www.teacherweb.com/FL/OakridgeElementary/KimJohnson/h1.stm
- ◆ Ms. Throop, of Bascomb Elementary School, also added a GGL page to her classroom website: <http://webtech.kennesaw.edu/stthroop/default.htm>
- ◆ Ms. Cindy Best, of Whitney Young Elementary School, added a GGL page as a lesson plan for her students: www.jefferson.k12.ky.us/Schools/Elementary/Young/ggl.html

There are two weaknesses of this project as it exists currently. I frequently receive e-mail messages from teachers asking about price lists that are obviously not accurate. Actually, this can be used as a benefit to the instructional process. Students need to see that data from the real world is not always as clean as data provided by textbooks. If the students have to make judgments on whether to use an entry where sugar is selling for \$40 a pound, then this is probably a good lesson for them.

Secondly, participation from countries outside the United States is disappointing. Although many schools in Europe and Australia are online and rapidly increasing numbers are using the Net in Asia and parts of Africa, it is still difficult to get project announcements out to these audiences. There must be a trick to it that I will learn in the future.

Until then, there is plenty to learn about the United States from our shopping carts. Check out <http://landmarks4schools.org/ggl/index.html> and join an ongoing collaborative Web project that offers many lesson opportunities for your classroom! ◆

International School Partnerships through Technology

By Diane Midness

I just bubble with excitement for this project and the future of this project. I do not want to contain my enthusiasm. I am like the proud parents or grandparents that say, "Let me show you a picture of..." Except, I say, "Let me show you this e-mail or this project or tell you this story."

My students come to class and ask, "Are we going to work on the project today? Did we get any mail? What do you think is going on there? Did you see ... and ... about their area on the news? When are you going to show us how to do ... and ... so we can do that with our partners? Why did you say they aren't able to write right now?"

These daily questions reaffirm what I feel. They keep the fire burning, and I do not want it to go out for them, for future students, or for myself. This project has been a wonderful way to make my curriculum more relevant, to teach cultural diversity, to teach appropriate social skills or workplace readiness (the fact that they may be working with someone from a different culture or race), and that living in a remote area doesn't mean that you are cut off from the world and the world's events.

—Thelma Kastl, Vocational Education Teacher,
Ashe County High School, North Carolina

Who would not want to have this situation in their classroom? Thelma Kastl and her students have been participating in International School Partnerships through Technology (ISPT) with a class in Ramat HaSharon, Israel, since the fall of 1997. She and other teachers in North Carolina and 40 different countries have learned that working and learning with others from different countries and cultures is motivating for students while making them more aware of the world around them.

The challenges of emerging technologies and a global interdependent economy require students to develop skills in technology, language, and communication. To function effectively, they must understand and respect other cultures, be able to communicate with those who are culturally different, and understand events in other countries and their impact on the United States. ISPT is a program of The University of North Carolina's Center for International Understanding with the objective of preparing students to compete in today's global

economy by improving student competencies in technology and cross-cultural communication. Teachers and students use telecommunications to interact directly with and learn from teachers and students in other countries.

Begun in the spring of 1997 with two pilot partnerships, ISPT has sponsored approximately 240 classroom partnerships involving about 7,000 North Carolina students in partnerships with schools in 40 different countries. Approximately 25 North Carolina high school classrooms each semester are partnered with classrooms abroad. Schools in rural areas with little or no exposure to other international cultures are the primary focus.

Teachers from all curricular areas collaborate with international partners to design programs that support their mutual curricular goals. Students implement these programs using Internet technology. ISPT has been particularly popular and successful with

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second languages, social studies, and business education teachers. The partnerships provide these students with real applications with real people for achieving curricular objectives. Their experiences in the program enable students to practice language skills, to learn about other cultures, to learn how to communicate with other cultures, and to understand how they are connected with the rest of the world.

The program has defined six cultural communication competencies that students need to develop to communicate successfully in our global society. These include factual knowledge of countries, the ability to recognize similarities and differences in cultures, the

ability to recognize the importance of culture in communication, the ability to recognize stereotypes and biases, understanding of the human impact of world events, and the ability to respect cultural differences without agreeing

with them. These competencies have been correlated with all high school curricular areas in the North Carolina Standard Course of Study.

Candi Lavender of Parkland High School has found that her partnership has helped students associate what they are learning in World History with real people and real places. Lavender says, "My students learned a great deal about their partnership country that would never have occurred without the partnership: Moldova isn't on the list of countries to cover in World History, but by using Moldova as a case study for the collapse of the Soviet Union and aftermath, students felt they had a stake in what happens there.

"Relevance is so important to teaching social studies to adolescents, and we are not in a vacuum—we are a global community. Teachers would not be able to do this program without the resources and expertise that the ISPT offers."

Mary Alice Lodico of Tuscola High School has moved the communication between students from e-mail to face-to-face conversations. In the fall of 1999, teachers and students from Nantes, France, visited their partner school in Haywood County, and in the spring of 2000, students and teachers from Waynesville went to visit their partners in France.

"Before the French students came to live in the homes of their 'correspondents,' writing e-mails was seen by some students as simply an assignment to be fulfilled for a grade, and I had to nudge them to send their next e-mail," Lodico notes. "Most, however, looked forward to writing and were impatient for replies. Now I don't, and can't, keep track of their exchanges, it happens so regularly.... Communication has taken off, with lots of *Franglais*, but they're developing linguistically and forming terrific bonds that will become fast friendships after a week's stay in the homes in Nantes."

The use of technology is essential for students in ISPT since all communication is done electronically through Internet applications. Students and teachers are given a real application to use the skills they have been required to learn for the North Carolina Computer/Technology Standard Course of Study. Partnerships are given webpages they may develop for communication and publication of student work.

Following the events of September 11, 2001, it is more critical than ever that we strive to reduce conflicts and increase understanding worldwide through international education and collaboration. Teachers and students realize that they do not know as much as they should about cultures other than their own and have begun to wonder what people outside of the U.S. think about the U.S. and its people. Students in ISPT partnerships have





Teresa Wile's keyboarding students at West Bladen High School created PowerPoint presentations based on correspondence with their partners in Hungary and research they did on the Internet. She writes that her students "...have learned to make group decisions, take leadership roles, peer teach, meet deadlines, and develop technology skills."

Stephanie Flatt of John A. Holmes High School writes, "I am really impressed with the responsibility and initiative my students showed in this project. The detail and maturity of the reflections showed their enjoyment, growth, and learning."

Mary W. Evans, a business education teacher at South Lenoir High School, also writes, "This is a wonderful supplement to the curriculum that gives real-world experiences to students that will last a lifetime."

Thelma Kastl recognizes changed student attitudes: "I have seen this partnership turn many of my students from being self-centered to more balanced. It has also allowed my students who are less vocal and social to participate in a project that allowed them to communicate and express ideas without fear."

One of Kastl's students, who originally did not see the need to communicate with anyone outside his community, now says, "I found the project to be interesting and personally fulfilling. It has really changed my life. It changes the way you think about global events happening when you know someone who is personally involved. I hope to meet more interesting people, such as I have in this project, during the rest of my life."



developed an interest in learning more so they can develop greater understanding for themselves and their partners.

A student from Freedom High School working in a partnership with a class in Lebanon wrote, "This partnership has changed how I think about the ways that students in other countries think about America."

Teachers and students have recognized that their relationships with their partners and the new attitudes they are developing will continue to affect their lives after the partnerships are completed.

James Douglas, a business education teacher at Smithfield-Selma High School wrote, "Thanks for making this possible. It has been good for me as a teacher and, I think, for my students. As a matter of fact, I think that my students will benefit for years to come because of my involvement this semester."

ISPT partnerships have not only changed how North Carolina students relate to the world—students from other countries have also had their horizons broadened. Students in India wrote, "We were overwhelmed to receive your letter. All of us are guessing your probable face and figure. The places you all must live must be common for you, but it is a dream place for us. We were all crowding here before your letter..."

A student from China wrote the following to the ISPT coordinator:

Thank you so much to join us together in the Internet over the globe. I just want to represent my

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classmates to say: your work means much to us! ...A few months ago our English teacher told us we'll join the ISPT project. Every one of us can't help but be excited.... It's really like a dream, a wonderful dream to us. Now the dream comes true; now we can talk with other youths all over the world; now we can feel and join our friends' lives, no matter how far we are away from them.... Please believe in us, we'll make full use of the priceless chance to communicate over the culture, to know the real world by our hearts, to let the world know: there

is an Internet line, which not only connect all youth, but also join the wishes of the future!

More information about ISPT may be found at www.ga.unc.edu. The International School Partnerships through Technology Program (ISPTP) is a model that other states may want to consider. Contact Diane Midness of the North Carolina Center for International Understanding (412 N. Wilmington Street, Raleigh, NC 27601, 919-733-4902, dmidness@ga.unc.edu) to discuss the structure and benefits of the ISPT Project.

What It Takes to Develop or Participate in a Collaborative Web Project

Just as the Internet offers multiple sites to join collaborative Web projects, Web travelers can also locate sites with suggestions for both designing online projects and for successfully participating in an existing project.

NickNacks Telecollaborate! at <http://telecollaborate.net> offers not only guidelines for designing an online project but also provides a template for assessing your software and hardware capability for telecollaboration (*NickNacks TeleCheck*), a template of the elements of a successful collaborative project (*NickNacks Project Planner*), tips on exchanging files on the Internet and finding participants, and a list of websites offering existing projects (<http://telecollaborate.net/education/edfind2.html>). One of the strengths of this site is the list of considerations in managing collaborative online projects. These considerations include the following:

1. Know your specific hardware and software needs.
2. Work out the bugs ahead of time.
3. Test your project on a different computer before soliciting participants.
4. Clearly state specifics in your call for participants.
5. Select enough participants to complete project goals.
6. Determine how to handle too many participants.
7. Make sure participants can do what the project requires before the project starts.
8. Practice data exchange procedures.
9. Meet the deadlines you set.
10. Remind participants about deadlines.
11. Encourage and support participants.
12. Be flexible to the needs of participants.

13. Be prepared to go the extra mile.
14. Complete the project regardless of complications or surprises.
15. Thank everyone.
16. Distribute outcomes to all.
17. Keep in touch.
18. Have fun.

(Source: <http://telecollaborate.net/education/eddevelop.html>)



One of the first sets of guidelines for developing and organizing online projects was from Judi Harris in a 1995 *The Computing Teacher* magazine column, "Mining the Internet," and later in the ISTE publication, *Virtual Architecture* (c. 1998). Some of her ideas on organizing telecollaborative projects can be found in the archived article at <http://lrs.ed.uiuc.edu/mining/February95-TCT.html>. She suggests:

1. Choose the curricular goals.
2. Choose the activity's structure.
3. Explore examples of other online projects.
4. Determine the details of your project.
5. Invite telecollaborators.
6. Form the telecollaborative group from those interested or registered.
7. Communicate regularly with participants.
8. Create closure.



Maybe developing an online collaborative project is more than you want to try just now. Instead, start with participating in several of the many projects on the Web. When deciding to participate, follow the steps below based on the iEARN (International Education and Research Network) guidelines:

1. Identify a project of interest and find out if the project is still active.
2. Check the "Purpose" and any "Update" topics to correlate them with your classroom needs.
3. Contact the project coordinator to introduce yourself, your class/school, and reasons for your interest in the particular project.
4. Locate the necessary equipment, software, and materials.
5. Develop a classroom timeline for conducting the project activities.
6. Organize the students for the activities and in groups for peer editing of messages prior to submitting.
7. Respond to recent postings/topics on the forum. Remember, all students want and need responses to their messages.
8. Communicate. Even if you can't contribute for weeks, send a note to say so.

Whether you decide to develop a collaborative Web project or just participate in some of the existing projects, have fun! ♦





Check Them Out: Sources for Collaborative Web Projects

OnlineClass at www.onlineclass.com offers Collaborative Online Projects: six-to-ten interactive learning units in which schools (grades 2–9) work in collaborative groups. Units such as Dinosaurs Alive, Bugs Count, The North American Quilt, On the Trail with Lewis and Clark, We're Talking Books, DoodleOpolis, Blue Ice, and Mythos include a collaborative activity, activities for the classroom, Web reading, Web links, moderated Web discussion, student work displays, and teacher support. Pricing for units begins at \$135/school. Also available is a free monthly e-mail newsletter containing tips on how to use the Internet in the classroom, technology reports, updates on OnlineClass programs, and comments from educators using the Internet in the classroom.

The Quest Channel from Classroom Connect at <http://quest.classroom.com> offers standards-driven, interactive geographic expeditions and travel with a team of experts, adventurers, and students to solve mysteries around the world. Team leader, Dan Buettner, is a familiar figure to long-time Internet-using educators from his early adventures in MayaQuest and AfricaQuest. Past quests and resources are available when you subscribe to the current quest. Most past expeditions have targeted upper elementary through high school students.

The Stevens Institute of Technology offers collaborative K–12 science projects at <http://k12science.ati.stevens-tech.edu/collabprojs.html>. The projects, correlated with the National Science Education Standards, are designed and managed by the Center for Improved Engineering and Science Education (CIESE), located at the Stevens Institute of Technology. These free projects primarily focus on middle school science curriculum but include projects in math, science, and educational technology for grades 1–12. Each project has a

similar structure with a project description, project instructions, project data, student area, teacher area, reference material, and online help. The projects are correlated with the National Science Education Standards.

Global SchoolNet Foundation is the “tried and true” source for online collaborative projects. They have offered free collaborative learning activities since 1984. Located at www.globalschoolnet.org, the site's Projects Registry is a clearinghouse of projects from around the globe, some hosted by the Global SchoolNet Foundation and others by reputable organizations and by classroom teachers worldwide. Users can search by student age, project start dates, curriculum, technology, or level. Also available are online, real-time expeditions for students to join a sailing ship, climb a Peruvian Andes peak, or travel around Africa or Australia.

The Project Center at www.eduplace.com/projects from Houghton Mifflin Company is filled with collaborative Internet K–12 classroom projects submitted by educators for mathematics, science, social studies, and reading/language arts classrooms. The Project Center also includes a guide for creating your own online project and a form for submitting the project for posting. There is no charge for participating either in an existing project or for submitting your own project for others to join.

Some sites with links to other website collections of collaborative online projects include the following:

- ◆ Kentucky Educational Television: www.ket.org/Education/IN/projects.html
- ◆ Judy Harris's book: <http://ccwf.cc.utexas.edu/~jbharris/Virtual-Architecture> (click on Curriculum-based Telecommunicating Projects & Resources)

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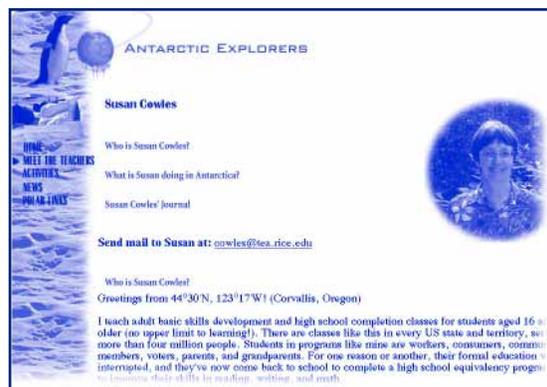
Adult Literacy Students Explore Antarctica Virtually

Adult basic education and ESL learners in Elizabethtown, North Carolina, have been writing to and learning from an adult literacy teacher in Antarctica. Leigh Thompson, Director of the Bladen County Literacy Council and a teacher in the program, is participating with her adult learners in a NSF-sponsored electronic fieldtrip to learn about Antarctica and the research that is being done there. They are looking at maps, reading about Antarctica, thinking about what it would be like to be there, and having answers to their questions come back from Antarctica.

Susan Cowles is an adult educator from Corvallis, Oregon, spending two months on a scientific research expedition studying Persistent Organic Pollutants (POPs) at Palmer Station, Antarctica. Every day or two, she posts a new journal entry and pictures to the expedition's website at http://tea.rice.edu/tea_cowlesfrontpage.html and encourages adult learners to e-mail her. Thompson reports that the learners have been particularly interested in the terrain, living conditions, her daily activities, and whether she has been homesick.

Tanisha, a new reader, wanted to ask about who else lives at the site and where they get food and clothing, but like many adult learners, she was hesitant to type her questions into an e-mail, perhaps because of a lack of confidence in writing skills as well as technophobia. Thompson offered to type from dictation, and the message was sent. A day or so later, Tanisha was ecstatic to find a personal response to her questions and then eagerly typed additional questions herself.

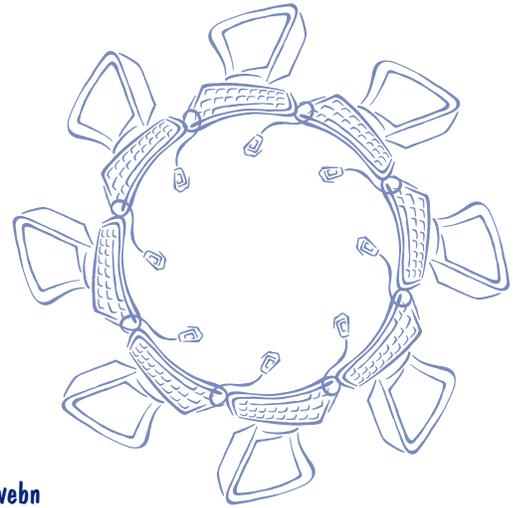
“One of the best things about our participation in this project,” says Thompson, “is that it gives the students an opportunity to learn about the Internet and about e-mail by actually getting to send mail to someone who is very far away, who is interested in their questions, and who sends a reply almost immediately.” ♦





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- ◆ The NJ NIE Project:
<http://k12science.ati.stevens-tech.edu/training/findingprojects.html>
- ◆ The Math Forum/Drexel University:
<http://mathforum.org/workshops/sum96/data.collections/datalibrary/lesson.ideas.html>
- ◆ Computer Pals Across the World site from the University of Central Florida: <http://reach.ucf.edu/~cpaw>
- ◆ Eisenhower National Clearinghouse:
www.enc.org/weblinks/classroom/projects
- ◆ Blue Web'n: www.kn.pacbell.com/wired/bluewebn
- ◆ Interactive projects for K-12 from Youth Net: www.youth.net/welcome.html#K-12



Electronic mailing list archives, such as EDTECH (www2.h-net.msu.edu/~edweb) or WWWEDU, often advertise other online collaborative opportunities, as well as those sponsored by professional organizations such as the National Council of Teachers of Mathematics (www.nctm.org). Nearly any class or school project can be turned into an online collaboration with a website, e-mail, and a little imagination. So, check out the sites above, not only for participation, but also for ideas about how to turn your favorite project into a collaborative online project! ◆



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