

# Online Adventures

## *Principles of Virtual Collaboration*

once blamed time, money, or policy when I was unable to provide exciting excursions and field trips for my students. Now with the click of a mouse, the whirr of a color printer, and the help of E-mail, I can take my students almost anywhere nearly anytime I choose (see page 15 for specific examples). I'd like to share some of the principles for implementing virtual adventures that I have learned by collaborating with teachers on Intel-education Expeditions (visit <http://inex.andrews.edu>). These principles can be summarized as follows:

- Know your curriculum;
- Acquire an overview of the online program;
- Get to know the online curriculum;
- Choose your level of involvement;
- Select an implementation model;
- Make modifications;
- Develop technology back-up plans;
- Empower your students;
- Build support;
- Share your success.

### **Principle No. 1: Know your curriculum.**

To innovate, you first need to be familiar with your school's curriculum guides and what you are supposed to teach. Decisions about implementing new projects should fit into the context of the required curriculum. If you are participating in an online project and a parent inquires about it, perhaps the worst thing you can do is to refer him or her to the online project director. You, the teacher, decide what is taught, or not taught, in the

classroom. Parents expect to be able to get the information they need about their children's learning from the classroom teacher.

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### **Principle No. 2: Acquire an overview of the online program.**

Online projects are usually sponsored by organizations or corporations that have produced previous projects. Inquire about what these organizations have sponsored before making a commitment to participate. Ask about the typical components of the program as well as the overall curricular design. For example, a Christian teacher thinking of using an online science project would need to know whether the project contains a strong evolutionary emphasis.

You will also want to check the time frame (when it will happen), deadlines (starting and ending times), and the costs (registration, training, equipment). Be sure to investigate program requirements. Some online projects require specialized training, equipment, or involvement. It is important to know these details before making a

commitment, as the specific curriculum may not be available until just before the beginning of the project.

### **Principle No. 3: Get to know the online curriculum.**

After surveying the online program, you will want to familiarize yourself with the curriculum of the specific project you have chosen. First, examine each activity to determine its purpose. There should be a clear, compelling objective or learning outcome. If you have a hard time seeing the purpose of a

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learning activity, your students will probably not understand it either and consider it a waste of time. Compare what you are supposed to teach (Principle No. 1) with the project curriculum. If the two do not complement one another, you may need to find another project.

It is also important to analyze the “**flow**” of the curriculum. Do the instructional activities follow one another in a logical progression? Some curricula for online projects are loosely coupled systems that do not really “hang together,” while others are tightly constructed and have a natural and powerful flow of learning activities.

Another consideration is the curriculum’s **flexibility**. In a rigid curriculum, every activity must be completed, often in a prescribed order. In a more flexible curriculum, some activities can be rearranged or omitted. Curriculum flexibility also relates to teaching style. You may find some projects’ activities too rigidly scripted for your teaching style,

A piranha caught in the Amazon Basin by members of the Ecuador Eco Expedition, December 1998. The expedition focused on biodiversity and visited three areas: the Andes highlands, the Galapagos Islands, and the Amazon Basin.

while others are too loosely described for you to follow.

As you explore the online curriculum, be sure to investigate the **instructional meth-**

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**ods** used in the activities. Choose online projects that use instructional methods with which you are familiar and comfortable. Some online projects require special training in highly specific types of instructional processes. If you lack the necessary training, you will have difficulty implementing these types of projects.

A final detail to consider is online interaction. These projects typically include opportunities, or even requirements, for **online interaction and posting of student work**. Inquire about these requirements before beginning the project. Some programs involve only a few postings; others require regular postings (i.e., daily or weekly); while others provide opportunities for such postings without requiring them.

College students who participated in the 1998 Inca Expedition in Peru upload information for use by elementary classrooms around the world. The expedition focused on the ancient Inca civilization and its contributions to and effect on modern society. The expeditions pictured in this article were sponsored by Andrews University and can be accessed at the Intel-ibration Expeditions Web site: <http://inex.andrews.edu>.

**Principle No. 4: Choose your level of involvement.**

After choosing a project, you must decide how deeply to involve your students. Using airline terms to describe involvement, at one end of the continuum is the “No-frills” commitment. At this level, you may tell your class about the project, have them check out the project’s Web site, or even print items from the program. However, your students do few if any of the project’s learning activities. Your participation is limited to making your class aware of the project.

The next level of involvement can be called “Economy” flight. Classrooms at this level participate in some project activities while not making them a major focus. Students visit the project Web site, use some resources, and post some required assignments to the online site.

With “Business Class” involvement, the online project becomes a major focus of classroom instruction. The students complete most of the project’s learning activities, post all required assignments, and make extensive use of the site and its resources.

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Students at Ruth Murdoch Elementary School in Berrien Springs, Michigan, work on the InEx Web site.

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At the upper end of the continuum is the “First Class” flyer. Teachers at this level involve their students in all of the project’s learning activities and online opportunities. The classroom may seem to revolve around its participation in the project. Every student is involved, and the class spends a great deal of time focusing on project-related activities. Students make extensive use of the Web site and its resources, and may initiate contact with project personnel.

**Principle No. 5: Select an implementation model.**

After choosing your level of involvement, decide *how* to integrate the online curriculum into your classroom curriculum. You have four options:

- Use it as an enrichment activity.

Ecuador Eco Expedition participants look at the Kicker Rock formation during the Galapagos leg of the adventure.

## **As you explore the online curriculum, be sure to investigate the instructional methods used in the activities.**

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“Teacher in the Black Lagoon”—article author Larry Burton in a black-water lagoon near the Napo River at Sacha Lodge during the Ecuador Eco Expedition. The piranha on page 13 was caught about six feet from where this photo was taken.

Continue with the “regular” classroom curriculum, reserving about one hour a day (or week) for students to participate in learning activities related to the online program. While this approach does not disrupt the typical school program, it isolates the project, giving it little connection to the “real” world of the classroom or the community. Students learn best when they can make multiple links between new learning and what they already know. Other weaknesses of this model include most teachers’ lack of time to add something else to their school day and the tendency of students to view the online project

as “busy work.”

• **Integrate it into the regular curriculum.** For example, you teach the online science activities during science time, the online social-studies activities during social-studies time, the online writing activities during English class, and so on. This approach does not disrupt the normal flow of the school day or require you to find “extra” time, as the enrichment model does.

• Teachers in departmentalized schools, such as junior academies and academies, may choose to **integrate the online project by focusing on connections across**

**content areas and collaborating with teachers in other content areas.** For example, social-studies teachers conduct the learning activities related to geography, history, and culture; while science teachers guide activities related to that content, and English or speech teachers focus on activities that require papers or presentations. The major strength of this approach is the cohesiveness of the curriculum across subject areas. However, the time required to coordinate the delivery of the online curriculum presents major obstacles to implementation.

• Perhaps the most potent model is **integrating the regular curriculum into the project**, where the teacher centers the classroom’s intellectual life around the online project. This model requires a deep understanding of both the required curriculum (Principle No.1) and the purposes and content of the online project (Principles No. 2 and 3). Teachers who adopt this model of integration usually spend up to half of the school day working on the learning activities in the online project curriculum *and activities they have created* to extend the online curriculum into their required curriculum. For example, let’s say a teacher planned to teach how to write business letters during the time an online project was scheduled. However, the online curriculum has no business-letter activities. The teacher adapts both her normal learning activity and the online project curriculum so that her students write business letters as part of the online project. The secret to success with this model is for the teacher to see appropriate connections between the online project and the learning activities he or she would use if the project didn’t exist.

### **Principle No. 6: Make modifications.**

Rarely do teachers use a packaged curriculum without making some adaptations to it. They constantly modify curricula to match their personal teaching styles or to meet stu-

#### **Online Adventures and Projects to Use With Your Students:**

**Intel-ebriation**--This program, operated by the author and colleagues at Andrews University, offers two types of online projects--expeditions and research projects. Each project focuses on a transnational issue, such as displaced persons. Expeditions help students investigate that topic through travel and involvement in local service projects. Students travel the Trail of Tears, join a dig in Jordan, explore diversity in Ecuador, and more. Intel-ebriation's research projects are called the Making a Difference (MAD) Challenge. The MAD Challenge uses a project-based learning approach to investigate a transnational issue and get students involved in finding solutions. <http://inex.andrews.edu/>

**Quest**--You may have heard of the award-winning MayaQuest. This group focuses on historical mysteries, archaeology, and anthropology, and generally conducts one quest each fall and spring. <http://quest.classroom.com/>

**Project Globe**--Global Learning and Observations to Benefit the Environment (GLOBE) is a worldwide network of students and teachers from more than 10,000 schools in some 95 countries working with scientists to study and understand the global environment. <http://www.globe.gov/>

**The Louvre Online**--Have your students take a virtual tour of one of the most celebrated museums in the world. <http://www.louvre.fr/>

**San Diego Zoo**--This Web site allows your students to view quality photos of almost every animal in the largest North American zoo. A commercially produced CD is also available with additional features. <http://www.sandiegozoo.org/>

dents' special needs or interests. As you make modifications, remember that most online project curricula are developed as integrated systems of activities. Every activity may be critical to the final learning outcomes of the project, even if this is not immediately apparent. While modifying the program, be careful not to violate the integrity of the curriculum. Listed below are some ways to modify the curricula of online projects.

Most online projects are not developed for single-grade classrooms, but are designed to apply to students in a range of grades. This makes them ideal for multigrade elementary classrooms and academy classes that contain students of varying ages. In these types of classrooms, it helps to assign activities to mixed-age cooperative groups.

If you teach children younger than those targeted by the online curriculum, you can **decrease the sophistication of the process and/or product**. You can do this by replacing small-group activities with whole-class projects. However, to ensure active involvement by all students, each child should have specific tasks to complete and should be held responsible for completing his or her part.

You can also reduce the rigor of online project requirements for younger children by limiting the breadth of required research and projects. For example, an online assignment might require a team of students to compare four famous individuals. You could have your teams research one individual and then share information for the comparison part of the activity. Or you could require your students to master only the material appropriate for their developmental level.

To adapt an online curriculum designed for younger students, follow this general rule: **Increase the sophistication of the student process and/or product**. One way to do this is to increase the depth or breadth of project learning activities. For example, if a project asks students to compare the economies of three countries, you could require a comparison of six countries. Similarly, you could have students compare the economy,

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Teachers from Collegedale (Spalding) School in Tennessee attend a basic workshop introducing them to online learning opportunities. Andrews University offers both professional-development workshops and seminars for graduate credit in educational technology.

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government, language, culture, and educational data for three countries.

**Principle No. 7: Develop technology back-up plans.**

School computer limitations may seem to make participation in online projects impossible. Even if you have excellent computer resources in your classroom, you will need to develop back-up plans in case the technology does not work during class time. Print information from the project Web site and/or download it onto your local computers. Then

if you lose your Internet connection during class or if the project Web site goes down, your students will still be able to continue with their learning.

If you lack Internet access in your classroom but do have a school computer lab, arrange for regular class visits to the lab during the project. If you don't have Internet access in your school, keep students up to date with the project Web site by printing out each new posting and placing them on a bulletin board in your classroom. If you don't have access to the Internet at home, recruit volunteers to print these daily postings for you (see Principle No. 9). You can also ask volunteers (parents, church members, other teachers) or students who have computers with Internet access to post required student assignments on the project Web site.

**Principle No. 8: Empower your students.**

Teachers who successfully implement online projects function as learning facilitators rather than content deliverers. This does not reduce the importance of the teacher's role. Content can be delivered by audiotapes, videotapes, notes, or textbooks; however, a teacher must be present to facilitate learning.

To create an environment that encourages learning, give students mental space. Rather than attempting to control their thinking, try to increase both the rigor of their thought processes and their repertoire of problem-solving techniques. One way to provide students with mental space is to encourage them to do online postings for the project. Don't worry if the postings sound childish—they are being written by children. However, you should not post poor quality work. Have students help develop assessment standards. Use those standards when you ask them to grade their work and when you grade assignments before sharing them in a public arena.

**Principle No. 9: Build support.**

During my 13 years of elementary teaching, I discovered that if I had a vision for the meaningful use of technology in my classroom, I could find supporters to help me im-

plement it. My partners were parents, church members, community members, business owners, and school alumni. Likewise, in implementing an online project, partners can be critical to success. They can sponsor a dedicated line for Internet connection to your classroom, donate computers or printers, pay required registration fees for online projects, print material from the project Web site and bring it to class, type in student responses online, or anything you can imagine. Remember the importance of a personal vision and share your dreams for your online project with as many potential partners as possible.

**Principle No. 10: Share your success.**

Teachers sometimes tend to underrate the value and quality of their work. Participating in an online project is above and beyond the call of your curriculum and job description. Be sure to celebrate this special event in and out of your classroom. One way of doing this is sharing the story of your project through classroom, school, and church newsletters. Some teachers celebrate the completion of an online project by hosting an open house. I attended one such event that was strategically planned for the same night as the local school board meeting. This teacher thus shared his

students' excellent work and online adventure with parents, church members, school board members, and his conference and union educational superintendents.

Don't limit your vision to church and school promotions. Local newspapers, radio, and television stations will be interested in your innovative classroom. Make phone calls to local news media or send them official press releases. Contact the director of your project to see if publicity packets and press releases are available. If not, you can create your own using a template on your word processor.

Participating in online adventures can sometimes prove frustrating and stressful. But by using these principles for implementation, you will be able to create a strong collaboration with an online project team. This will lead to greater student learning and satisfaction with the project. ✍

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A land iguana photographed by members of the Ecuador Eco Expedition. A plant eater, it likes to bask in the sun and is quite unafraid of humans.

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The longboats shown were the primary means of transportation for the Ecuador Eco Expedition on the Amazon River. According to the author, when the boats were fully loaded, their edges were within six inches of the water!