

Developing a Community of Learners

WHAT WILL IT LOOK LIKE,
AND HOW WILL IT WORK?



Figure 1. Student at her work cubicle in a pod at the School of Environmental Studies.

By Diane McGrath

Subject: Technology-infused PBL, classroom design, learning communities

Audience: Teachers, teacher educators, technology coordinators, library media specialists

Grade Level: K-12 (Ages 5-18)

Standards: NETS•S 3-6; NETS•T II, III (www.iste.org/standards)



Figure 2. Student pod area at the School of Environmental Studies.

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The *Edutopia* newsletter focusing on the physical design of schools arrived in my mailbox yesterday. The centerpiece article was about Minnesota's "Zoo School," the School of Environmental Studies on the grounds of the Minneapolis-St. Paul Zoo (Curtis, 2002). I have to confess to being completely startled by the pictures you see (Figures 1 and 2) of high school students working in cubicles where they have their personal objects and photographs, work materials, and shared tools in and around a desk that is part of a pod of 10 desks. Students work and collaborate within and across pods, and they go where they need to in order to accomplish the research they set out for themselves (e.g., the zoo itself, other pod areas, computers, media center).

I had to stop and ask myself why this innovative school design startled me so. After all, I have been thinking, teaching, and writing for some time now about creating classrooms—and outdoor laboratories—that are design studios, where students use real tools to research, create, and revise the products of their understanding.

If I were to put words to my surprise at the Zoo School's design, it would go something like this: Why, that looks like they are really working—I mean, it's like they have a real job, an office. It's like what I do!

Well, my reaction surprised me as much as the Zoo School itself did. For all my talk about authentic projects, students as designers and researchers, and so on, I have had in the back of my mind that it's "pretend" designers, "pretend" researchers, at most apprentices. The design of the School of Environmental Studies brought me to a new level of appreciation for just how far we can go toward having students really *be* a part of a community of learners, researchers, knowledge builders, not just play at it. I have come to see that although many of us will never be able to afford work cubicles for each stu-

dent, or to be able to have small schools with lots of experts and resources available and lots of individual attention, there are many things we can do to bring about a sense of community in our learning, a community of *real* learners.

As you may recall from the second column in this series (see "Launching a PBL Project," *L&L* 30(4), pp. 36–39), the five major features of project-based learning (PBL) include the all-important community of inquiry. Inquiry is at the heart of PBL. Community, however, may be a more difficult concept to grasp. Let's take a look at some important features of such a learning community.

Fostering a Community

Rather suddenly, I thought, the phrase "community of learners" began turning up everywhere—in schools' Web sites and mission statements, in article titles, indeed as a hand-crayoned poster on the bulletin board in one of the classrooms in which I teach at the university. Because I was on sabbatical last year, I took the opportunity to track this idea down and see where it came from, what it meant, and how it fit into the other work I was doing on PBL. (A few of the best online sources I found are listed in the Resources section on p. 45.)

One of the most important things I discovered about the idea of a learning community is that it doesn't just "happen" when you ask learners to divide into groups and do a group project. You have to set the stage for a community to develop: to design the goals, feedback, and assessments; to establish the tone of the classroom to support community; and to model being part of that community. If you think of the community of inquiry/community of learners idea as one that places

knowledge and understanding *of the entire group* at the center, you will be closer to the image I believe the researchers on this subject are trying to teach us.

Let's take a closer look at one of the most important programs developed to promote a community of inquiry, a program called Fostering a Community of Learners (FCL), initiated by the late Ann Brown and her colleagues (Brown, 1994, 1997). Brown designed a program in the Oakland, California, schools in which learners collaborate, research, share, and reflect on topics that involve them in "deep disciplinary content"—for example, a project on the Exxon Valdez oil spill and the issues surrounding that event. Brown's work was so successful that many schools around the country now design similar FCL learning environments.

FCL is a system of five critical pieces that work together:

1. **Active, purposeful learning** Intentional learning involves metacognition, an awareness of one's strategies, abilities, and preferences, of what one understands and does not understand. We need to encourage this type of learning and reflection on learning. One way to do this is to help learners design projects that make them want to know more and to work together toward understanding.
2. **A learning setting that pays attention to multiple zones of proximal development.** The notion of zone of proximal development (ZPD) is one that Vygotsky promoted (see Brown, 1994, p. 9, for a discussion of this concept). It encompasses the ideas that learners can do more with the help of tools and guides than they can alone and that much learn-

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ing can take place in this area of potential, but not actual, accomplishment. Brown maintains that the learners in a classroom all have different areas of potential at any given time, and that teachers need to design learning environments that support learners in these many ZPDs. Work in the ZPD encourages learners to reach toward accomplishments they would not have been able to do alone. Project-based learning in which a group collaborates on an important task promotes this kind of growth in multiple ZPDs.

3. *The legitimization of differences*

We have a tradition in our schools of wanting everyone to know the same things. In Brown's FCL classrooms, she wanted to increase the *diversity* of knowledge and skill, allowing students to develop their individual areas of expertise (in addition to understanding basic material, not instead of) so that the entire class can benefit. This diversity adds to the sense of community because the entire class is enriched by the expertise of its members. Students become resources for each other, and the teacher need no longer be the central repository of knowledge.

4. *A community of discourse.* Brown designed her classrooms to become "interpretive communities," that is, communities that develop norms for goals, values, and ways of discussing ideas, including what counts as evidence, how people exchange ideas or argue for or against points of view, and so on. These are all features of a community of learners.

5. *A community of practice.* Here Brown talks about the research practices of the group: learners depend on each other in order to accomplish their tasks. This means that mem-

bers must be responsible to each other and the group, be mutually respectful, and identify as part of the group. All members of the learning community must take responsibility for the accomplishment of their joint task.

Teachers, of course, are part of the community of learners. In fact, all members of a school, outside experts, parents, community members, and even telementors may be part of the learning community. Teachers play a critical role in the development of a community of learners in what they model for students. As Roland Barth (2001) says, "Teachers and students go hand in hand as learners—or they don't go at all" (p. 23).

Applying Technology

One of the regional technology consortia (SouthCentral RTEC) recently reported on a professional development project in which 160 teachers participated in a two-year program called "Applying Technology to Restructuring and Learning" (Burns, 2002). The research they did on this teacher enhancement project may be surprising, as it appears to contradict what many have believed about how technology can help us in the school restructuring effort. Two important findings related to the development of communities of learning are described below.

The Benefit of Limited Resources. One of the things that often surprises people is that when it comes to the vision of restructuring we have been discussing, less technology is often better than more. Why? Because it requires that people work together instead of at separate computer workstations doing their own thing. In this teacher education project, they held their sessions in class-

rooms with one to four computers, just as these teachers would find in their own schools.

The Benefit of Limited Technological Knowledge. Teachers often refuse, as they did in this study, to use technology in their classrooms, because they don't believe they have the time to get the depth of knowledge and skill they believe they need to help their students. In this professional development project, the instructors taught the teachers only a few skills or commands, and then sent the teachers back to teach their groups, using printed handouts, Help menus, and group problem solving to figure out the rest. The researchers found that although teachers at first resented this strategy, in the end it helped them become comfortable, rather than expert, in the use of technology. This strategy trickled back into the teachers' classes: teachers began to be comfortable not knowing everything about the technology and relying on others to help figure things out. They gradually gave over more of the authority for expertise to their students. Once that shift in authority began, shifts in classroom arrangement followed.

Of course there are many other, probably more obvious, ways technology helps us redesign our classrooms to promote the community of inquiry feature of PBL, in which the group has as its goal to increase the group's understanding. Technologies can provide:

- Access to information, to expertise, to collaborative groups or group members at a distance, and to productivity software for carrying out projects
- The tools for helping understanding
- A place to work, a focus to that work, and the means of creating and sharing a product of learning

How do you help make your classroom or school more of a community of learners. What ways can technology help make that possible? And how has that enhanced PBL? Tell us in a letter sent to letters@iste.org.

- A motivating way of learning and expressing one's creativity and understanding

Resources

In addition to Diane McGrath's PBL Web site (<http://coe.ksu.edu/pbl/>), which expands on resources mentioned in the PBL columns, with annotations and further links, you may also find the following resources useful.

Ann Brown & Joseph Campione's *Guided Discovery in a Community of Learners*: www.russellsage.org/special_interest/literacy/Campione.pdf. This is a good source for understanding the authors' methods and rationale for actually developing a community of learners.

George Lucas Educational Foundation: www.glef.org. Read the latest online version of *Edutopia* and see movies or hear audio files of people describing projects in greater depth.

Sylvia Chard's *The Project Approach*: www.project-approach.com. Especially worthwhile is the short section under Foundation Theory: Classroom, which gives suggestions for learning communities involved in PBL.

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