

Generation www.Y



GENERATION WWW.Y

PROGRAM DESCRIPTION

Generation www.Y (GenY), started in 1996, focuses on today's new generation of youth as partners, and often leaders, in bringing technology into the classroom. Instead of teaching technology skills to teachers, GenY trains students to partner with teachers to improve teaching and learning. Along with educators, students become agents of change, not mere recipients of change. The class has been implemented in grades 4–12, with the majority of participating students in grades 6–8.

The core of the program is the GenY course, taught by a coordinating teacher and offered as an 18-week class in secondary schools or a 30-week class in elementary schools. GenY students are trained in computing and telecommunications skills for the purpose of helping rebuild the curricular units in their school so that teachers, administrators, and all students can make better use of modern technology. GenY students also receive training and coaching on communication and collaboration with teachers, project planning and management, standards-based curriculum development, and effective presentation of information to learners. Coordinating teachers participate in a one-day training workshop.

One coordinating teacher and one class of students per semester are the kernel of the program in each school. Each GenY student in these classes forms a partnership with a teacher, known as the partner-teacher, and together the team designs and completes curriculum-building projects. Many teachers schoolwide participate as partners. The partner-teacher chooses a lesson plan or curriculum unit to upgrade or build from scratch, then teacher and student plan a project that enriches the unit or lesson plan, taking advantage of the available technology. The student focuses on the technical aspects of the project, meeting regularly with the partner-teacher to ensure that the project fits with the teacher's curriculum plan and classroom needs. The partner-teacher uses this technology-enhanced lesson in classroom teaching, often continuing afterwards to develop or extend the project with continued technical assistance from GenY-trained students. The students provide Internet expertise (e.g., search out Web sites for information and help with electronic presentation of materials), while the teachers model skills such as communicating effectively, mentoring, solving problems, and project management.

The GenY course is supported by an extensive curriculum guide, student workbook, CD-ROM, and videotape, all developed during the first 2 years of the program. Participants also have access to an online database of previous project descriptions, a planning database with facilities for aligning projects with state standards, and an online system staffed by content-area experts who provide feedback to students on their developing projects.

PROGRAM COSTS

For cost information, please contact program designee.

QUALITY AND EDUCATIONAL SIGNIFICANCE

LEARNING

GenY students receive training in network and Internet use, in a variety of computing skills, as well as in communication, collaboration, teamwork, project planning, project management, and project presentation. The training is designed to help students support teachers in rebuilding their lesson plans and curricular materials to enhance learning by using technology.

The GenY experience involves a wide range of technical, academic, cognitive, and social skills. Students are expected to become proficient and critical consumers and producers of educational technology as well as to use these skills to help teachers use and produce educational technology. This requires understanding, then communicating and collaborating effectively with someone who may have a different point of view. When building collaborative projects, students must understand the needs of the partner-teacher, frame problems productively, seek out appropriate tools and information, then plan and manage their time and work in order to accomplish a discrete project within a specified timeline. Delivery of the projects entails good communication and presentation skills, using a style appropriate to the audience and the pedagogical purpose. The projects are typically unique and require students to think flexibly and creatively, direct their own learning, get help when needed, be responsive to feedback from the partner-teacher, and take responsibility for an academic and technical product. One student, for example, developed a HyperStudio unit on prefixes, suffixes, and root words that was easy for the class to understand and included a quiz that was fun to take.

Benefits for the partner-teacher include an understanding of how to teach lessons enhanced by technology and aimed at national and state learning goals and educational standards. In collaboration with the GenY student, the teacher develops a more collaborative relationship with students as colearners and partners in the educational process, in which both student and teacher make important contributions. The GenY class is divided into 10 units that provide a suggested content and format for schools to implement the model. The format provides a model of project-based, authentic, student-centered, multidisciplinary teaching and learning enhanced by technology.

EXCELLENCE FOR ALL

The GenY model has been adopted in rural, suburban, and urban settings in several states and the Virgin Islands. As a result of outreach efforts during 1999–2000, the GenY program will be implemented in several inner city schools, western schools with a high Native American population, and in high-diversity schools in Hawaii. Because of a slight gender imbalance in GenY classes in general as of September 1, 1999 (56–60 percent males vs. 40–44 percent females), one school has implemented special versions of the class aimed at appealing to girls. Program developers are studying this effort to determine how to improve the gender imbalance in other schools. All GenY students are held to the same standards:

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USEFULNESS TO OTHERS

GenY began in the Olympia School District in the State of Washington. As of September 1, 1999, GenY has been adapted for use in 140 schools in 11 states and the Virgin Islands. Several hundred more schools across the nation are beginning to use the model. After two years of intensive development efforts, the course is supported with an array of resources (some online) for coordinating teachers that can be adapted for different school settings serving all populations using virtually any hardware/software infrastructure. The course materials have been used successfully from upper elementary through high school levels and include materials for administrators, partner-teachers, coordinating teachers, and parents. The model is flexible, allowing classes to be conducted before school, after school, as a regular school elective during the day, or on weekends.

satisfactory completion of the curriculum units, including exercises, classroom activities, and assessments; delivery of a fully articulated, planned project proposal during the middle of the semester; and completion and documentation of the project by the end of the semester.

In addition to the core model, the program includes an opportunity for GenY graduates and preservice teachers to staff school-based or community computer labs. The labs provide increased computer and network access as well as coaching for underserved students, their families, and other community members. Students who use these labs often have no computer, no Internet access, or inadequate software at home, so the labs serve an important function in increasing the equitable distribution of access to technology.

Organizational Change

The premise of GenY is that students are a largely untapped, creative, enthusiastic source of partnership and leadership in an effort to use technology to support school reform. Thus, the program supports increased cooperation and collaboration among students, teachers, administrators, family and community members, as well as business, educational and community organizations. The program requires coordinating teachers, partner-teachers, and students to think carefully about the alignment of curriculum units, lesson plans, and collaborative projects with state standards. In the state of Washington, GenY materials and online support are linked to the Washington Essential Academic Learning Requirements. Further, the online resources for project planning and reporting have been expanded to allow participants in each state to work with their own system of learning goals and state standards.

EVIDENCE OF EFFECTIVENESS

GenY students, partner-teachers, and coordinating teachers reported that 90 percent of the students completed their projects. These students generally feel proud of their projects, and their partner-teachers consider the projects to be of high quality (93 percent). The majority of the partner teachers (92 percent) reported using the projects in their regular classes and planning to update or extend the projects in future class activities (94 percent). Almost half of the projects completed in spring 1999 were multimedia presentations and 25 percent were Web pages. The remainder involved teaching technical skills to teachers and other students, providing assistance in Web searching, and other activities.

In spring 1999, 807 partner-teachers completed surveys before beginning the program, and 631 completed follow-up surveys at the end of the semester. About 90 percent of the responding teachers intend to use the new lessons repeatedly or will continue to develop and expand them; this same percentage also reported that as a result of the GenY, they learned about technology and their students learned about technology and a content discipline. Nearly all (about 95 percent) consider GenY a good method for providing support and assistance to teachers as they integrate technology into their classes, reported a desire to continue participating in the program, and said they would continue to rebuild lesson plans to benefit from using educational technology. Eighty-two percent of the teachers reported that the experience would change the way that they teach in the future.

When asked their opinion about using technology in education after participating in GenY, virtually everyone (98 percent) said they felt technology facilitates positive changes in classroom teaching and learning practices; 52 percent said they wanted to learn more about using new technologies; and 62 percent attributed these results to their participation in GenY.

An external evaluation documents substantial learning gains on the part of participating students. Reviewers were impressed by the creativity of the project, creating a role reversal in which students help support the school's technology infrastructure and partner with teachers in curriculum development. The latter is crucial to the success of the project and to fostering learning gains for all students in participating districts. While a few projects have taken similar approaches, this particular implementation is better conceived, more thoroughly implemented, and more carefully documented than other comparable programs.