

Generation Y 2003-2004 Evaluation Data

Prepared for **Generation YES** by the **Northwest Regional Educational Laboratory**



This report includes data from the following schools:

Grass Valley - Grass Valley Unified School District - California

Lyman Gilmore Middle School, Grass Valley

Generation Y Evaluation Results

The following report contains data generated from the Generation Y class or classes recently delivered in your school, district, or region. Depending on how your Generation Y programs were funded, the data may represent a single school, multiple schools within a district, or some other grouping of schools on a regional or statewide basis. This report has been prepared by the Evaluation Program of the Northwest Regional Educational Laboratory as part of the suite of services provided to your school(s) by Generation YES.

All of the information contained in this report is collected through a variety of online surveys and forms provided by the Generation Y website, including the following:

- Pre- and post-surveys completed by participating Gen Y students,
- Titles of collaborative projects undertaken by Gen Y students and their partner-teachers,
- Surveys completed by Gen Y partner-teachers at the end of the each class, and
- Surveys completed by Gen Y teachers at the end of each class.

It should be noted that this report makes no attempt to evaluate the quality or significance of specific projects completed by teams of Gen Y students and their partner-teachers. A meaningful assessment of the overall impact of your Gen Y program should consider the contents of this report in combination with a local evaluation of how the Gen Y program has been used to support teaching and learning in your particular context.

We hope you find this information to be of interest and value. Generation Y's intended purpose is to assist with the effective integration of technology in teaching and learning, while engaging students in constructive, meaningful activities that support teachers and other members of the school community. The information presented here will hopefully provide you with a snapshot of those activities, as well as an appreciation for how those activities support technology integration and student engagement in your schools. In addition to this 'localized' report, a national report summarizing program data from across the nation is also available on the <u>Generation YES website</u>. Interesting similarities and differences may be discerned by comparing data and information from individual schools or regions with national data.

Overview of Generation Y

The core of Generation Y is the establishment of collaborative partnerships between students and teachers, with the express purpose of facilitating the integration of modern digital technologies in the practice of teaching. Gen Y promotes the effective use of educational technology in schools, provides opportunities for meaningful student engagement and leadership, and fosters the establishment of a true learning community by blurring the distinctions between teachers and learners. Rather than teaching technology skills to teachers in the hope that they will use those skills to improve their teaching, Generation Y trains students to form working partnerships with their teachers in order to positively impact teaching, learning, and school culture. Students become agents of change, assuming responsibility for helping to improve the availability and use of customized educational resources.

Generation Y students learn technology skills with an emphasis on applying those skills to a real-world problem: helping teachers use technology to deliver more engaging and effective lessons. Students and their partner-teachers learn how telecommunications tools, the World Wide Web, digital media, presentation tools, global positioning systems, and other emerging technologies can enhance lessons and curriculum units. Gen Y students have the additional opportunity, through working with their partner-teachers, to develop an appreciation of sound pedagogical practice, including: (a) the identification of learning objectives; (b) the consideration of assessment strategies; and (c) the alignment of projects with state or local curriculum standards.

Gen Y students are paired, either individually or in teams, with a partner-teacher or other school staff member. Initial team meetings are held to decide upon a lesson, curriculum unit, or other school need that might be addressed though a technology enriched, collaborative project. The Gen Y student then takes primary responsibility for the "nuts & bolts" technology components of the project, while the teacher ensures content accuracy and pedagogical appropriateness. The resulting projects are then used in the partner-teacher's regular classroom, or in the library, administrative offices, etc. Through this model, educators receive targeted, individualized support as they improve their skills in using and integrating new instructional technologies. Students learn technology, communication, collaboration, and project management skills in an authentic, personally meaningful context. Many then go on further extend their skills through more advanced school or community service projects.

The Generation Y program was originally developed, beginning in 1996, in the Olympia (Washington) School District, funded by a five-year award from the U.S. Department of Education's Technology Innovation Challenge Grant program. In addition, numerous state and local grants, as well as corporate sponsorships, have supported the development of the instructional model and materials, enabling the dissemination of the model to schools beyond Olympia. Currently, Gen Y classes are provided through the Generation YES organization to schools nationwide. The program provides a model that can be tailored to fit a wide range of grade levels, technology infrastructures, scheduling requirements, interests, and skill levels of participating students. In the summer of 2000, the program was awarded a rare "Exemplary" rating by the department's Expert Panel on Educational Technology, a distinction limited to only two of 134 evaluated programs.

Data from the nationwide project indicate that Generation Y can be an effective alternative for schools wishing to further integrate technology into their regular curriculum offerings while increasing their use of project-based, student-centered learning practices. The model provides individualized support for educators seeking to increase their integration of instructional technologies without becoming sidetracked from their primary professional responsibilities—building and delivering effective curriculum lessons and units. Gen Y achieves this by providing students with the skills and opportunity to act as responsible partners with their teachers in creating new curriculum materials and developing new teaching and learning practices.

Participating teachers and students have consistently reported that their involvement in Generation Y afforded them an excellent opportunity to improve their basic technology skills while developing more advanced abilities to integrate technology into standards-based lessons, projects, and curriculum units. Both teachers and students report that they have gained valuable experience developing their skills in technology use, collaboration, project management, and information literacy, while contributing to the improvement of their schools. Most have found the Gen Y approach to be an effective professional

development strategy for teachers, as well as an effective means to increased student engagement, learning, and leadership.

For those unfamiliar with Generation Y, the term "partner-teacher" refers to classroom teachers who are paired with a Gen Y student. These teams then collaborate in the development and delivery of a lesson or unit, incorporating modern digital technology, to the partner-teacher's class(es). The term "Generation Y teacher" refers to the individual who delivers and manages the Gen Y class, working with *all* Gen Y students in a school. The Gen Y teacher guides student acquisition of new skills and knowledge through the course activities, and provides supportive assistance as students develop their collaborative projects. The Gen Y teacher also helps facilitate and support the relationships between Gen Y students and their partner-teachers. The core of the model is the Gen Y class and the collaborative projects developed by Gen Y students and their partner-teachers for delivery to students in the partner-teacher's class, as depicted in Figure 1.

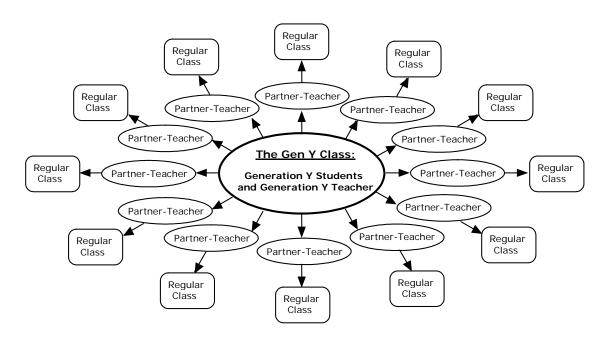


Figure 1. The Generation Y Class

Generation YES provides fully participating schools with the following:

- A training workshop for the Generation Y teacher(s) and selected students
- Course materials, including curriculum guides, student workbooks, videos, CDs, etc.
- Access to online resources and consultants for the development of student projects
- Access to the searchable database of previous student projects
- Data collection and reporting services to monitor program outcomes

The program includes a series of online surveys and online project documentation facilities for Generation Y teachers, Generation Y students, and the Partner Teachers who work with the Generation Y students. Data from these sources, collected during the 2003-2004 school year, are presented in the tables on the following pages.

Generation Y Teacher Reports

At the close of each Generation Y class, teachers are asked to complete an online report that includes questions about the collaborative projects involving their students and partner teachers from their school, the technical and administrative infrastructure in their school, and their ratings of the usefulness of the GenY model, curriculum components, online services, etc. The tables in this section provide a summary of their responses.

Table 1 Average Numbers of Generation Y Students and Collaborative Projects

Generation Y Teacher Survey Question	Average in classes
How many students completed your GenY class?	11.0
How many collaborative projects were begun by your students?	6.0
How many projects were completed?	6.0
How many projects were delivered to a partner teacher's class?	6.0

Table 2
Difficulty of Managing Collaborative Partnerships and Projects

	Very Difficult	Difficult	OK	Easy	Very Easy
How difficult was it to find partner teachers interested in participating?	0.0	0.0	0.0	0.0	100.0
How difficult was it to make good matches between those teachers and your Generation Y students?	0.0	0.0	0.0	100.0	0.0
How difficult was it to nurture and manage the working partnerships between your GenY students and their partner teachers?	0.0	0.0	0.0	100.0	0.0
How difficult was it to adjust the class for students and partner teachers with varying levels of expertise with computers?	0.0	0.0	0.0	100.0	0.0

(percentages of approximately 1 reporting)

Table 3
Infrastructure and Administrative Context

	Strongly Agree	Mostly Agree	Mixed	Mostly Disagree	Strongly Disagree
The computer and network infrastructure at our school is adequate.	0.0	100.0	0.0	0.0	0.0
Students have adequate permissions and privileges to use our computer and network resources, e-mail, and the Internet.	0.0	0.0	100.0	0.0	0.0
Our teachers are enthusiastic about the Generation Y model, in which they work in partnership with students to create curriculum and instruction materials and projects for other students to use.	100.0	0.0	0.0	0.0	0.0
The schedule and administrative structure and processes at our school are flexible enough to allow creative and varied collaboration between students and teachers.	0.0	100.0	0.0	0.0	0.0
Generation Y is viewed in our school as a serious professional development and technical support model for teachers who want to integrate technology in their classrooms.	0.0	100.0	0.0	0.0	0.0
Generation Y projects are used to support other special initiatives in our school aimed at technology integration, professional development or curriculum development.	0.0	0.0	100.0	0.0	0.0

(percentages of approximately 1 reporting)

Table 4
Generation Y Teacher Ratings of Success and Impact

	Strongly Agree	Mostly Agree	Mixed	Mostly Disagree	Strongly Disagree	No Opinion
The GenY model is a good way to help teachers integrate technology in their classrooms.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY model is a good way to make school more engaging and meaningful to students.	100.0	0.0	0.0	0.0	0.0	0.0
The GenY model is a good way for students to learn technology skills.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY model is a good way for students to practice solving real-world problems.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY training I received was adequate to prepare me to teach this course.	0.0	0.0	100.0	0.0	0.0	0.0
The GenY central office staff has been responsive and helpful when I have requested assistance.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY Curriculum Guide has been very useful to me in delivering the course.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY Student Workbook has been very useful to me in delivering the course.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY CD has been very useful to me in delivering the course.	0.0	0.0	100.0	0.0	0.0	0.0
The GenY Video has been very useful to me in delivering the course.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY Website has been very useful to me in delivering the course.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY online system for registering schools, teachers, classes and students has been easy to use.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY online Classroom Management tools have been easy to use and helpful to me in delivering the course.	0.0	100.0	0.0	0.0	0.0	0.0
The GenY online Project Proposal, Feedback and Final Report system for students has been easy to use and helpful to me in delivering the course.	0.0	0.0	100.0	0.0	0.0	0.0
The online Archive of GenY collaborative projects has been easy to use and helpful to me in delivering the course.	0.0	0.0	100.0	0.0	0.0	0.0
We will continue to offer Generation Y classes at our school in the future.	100.0	0.0	0.0	0.0	0.0	0.0
I would be willing to serve as a trainer for teachers in my region who want to begin Generation Y programs in their schools.	0.0	0.0	0.0	0.0	100.0	0.0

(percentages of approximately 1 reporting)

Student Preliminary Survey Results

Students complete a preliminary survey when they register for the the Generation Y class. The survey includes demographics as well as questions about access to computers and the internet, current skill levels and prior use of digital tools. This information is summarized in the next set of tables.

Table 5
Participating Generation Y Students by Gender

Gender	Percentage of Students (of 23 reporting)
Male	91.3
Female	8.7

Table 6
Participating Generation Y Students by Ethnicity

Ethnicity	Percentage of Students (of 21 reporting)
Caucasian	57.1
African American	0.0
Hispanic	23.8
Asian	0.0
Pacific Islander	9.5
Native American/Native Alaskan	4.8
Other	4.8

Table 7
Computer Access at Home by Generation Y Students

At home do you have access to:	Yes	No
A computer	88.0	12.0
The Internet	84.0	16.0
Send and receive email	36.0	64.0

(percentages of approximately 34 reporting)

Table 8
Frequency of Computer Use by Generation Y Students at Home and School

How often do you use a computer?	Almost every day	At least once a week	Once or twice a month	Once or twice a semester	Never or don't have access
At home	50.0	29.2	12.5	0.0	8.3
At school	60.0	28.0	8.0	0.0	4.0

(percentages of approximately 25 reporting)

Table 9
Student Experience With Computer and Technology Prior to Participating in Generation Y

How much experience have you had with the following:	None	Just a little	Some	A lot
Use word processing software	20.0	16.0	44.0	20.0
Search the Internet	0.0	8.0	36.0	56.0
Send and receive email	20.0	4.0	32.0	44.0
Use PowerPoint or other presentation software	24.0	36.0	8.0	32.0
Troubleshoot basic computer problems	8.3	45.8	37.5	8.3
Use a scanner to digitize a picture	36.0	12.0	28.0	24.0
Use a digital camera	20.8	16.7	25.0	37.5
Create a web page or web site	44.0	12.0	16.0	28.0
Touch-typing at least 15 words/minute	12.0	16.0	32.0	40.0

(percentages of approximately 25 reporting)

Table 10 Frequency of Computer Use in Classes

In the classes you took last semester/quarter, how often were computers used by you or your teachers?	Computers were never used	Computers were used once	Computers were used a few times	Computers were used about once per week	Computers were used several times per week
Math	13.0	21.7	43.5	8.7	13.0
Language Arts, Reading or English	21.7	13.0	30.4	21.7	13.0
Science	17.4	30.4	43.5	4.3	4.3
Social Studies, Geography or History	18.2	22.7	45.5	9.1	4.5

(percentages of approximately 23 reporting)

Student Outcomes

Just before the class is over, students are prompted to complete a second online survey. Questions include how much practice students gained in various skill areas, what kind of collaborative projects were built, and how students rated their projects on several dimensions. The tables below summarize the outcomes reported by students.

Table 11
Practice Gained in Computing Skills by Generation Y Students

During your work this semester as a Generation Y student, how much practice and experience did you get:	None, I didn't do this at all	Just a little; 2 hours or less	Some; 2 to 10 hours	Quite a bit; 10 to 20 hours total	A lot; more than 20 hours total
Using a keyboard to touch-type at least 15 words/min	12.5	25.0	16.7	8.3	37.5
Using word processing software	12.5	33.3	8.0	12.5	20.8
Searching the Internet	0.0	17.4	34.8	34.8	13.0
Sending and receiving e-mail	16.7	41.7	16.7	20.8	4.2
Using PowerPoint or other presentation software	25.0	8.3	12.5	8.3	45.8
Troubleshooting basic computer problems	20.8	45.8	25.0	4.2	4.2
Using a scanner to digitize a picture	29.2	25.0	29.2	8.3	8.3
Using a digital camera	20.8	41.7	20.8	8.3	8.3
Creating a Web page or Web site	66.7	8.3	8.3	8.3	8.3

(percentages of approximately 30 reporting)

Table 12
Types of Collaborative Projects Built By Students and Partner Teachers

Project Type	Percentage of projects that included this component:	Percentage of projects that were mainly focused on this component:
GenY student created or updated a Web page that was used by my partner teacher's class	40.0	12.0
GenY student helped other students search the Web for information on a class topic	40.0	0.0
GenY student developed an educational presentation using PowerPoint, HyperStudio, or other software	84.0	60.0
GenY student taught technology skills to a teacher	60.0	4.0
GenY student taught technology skills to other students	72.0	4.0
Other	12.0	20.0

(percentages of approximately 25 reporting)

Table 13
Delivery of Collaborative Projects

	Only Me	Only my Partner Teacher	Both of Us Together
When the lesson was delivered to your partner-teacher's class, who taught the class that day?	40.0	0.0	60.0

(percentages of approximately 15 reporting)

Table 14 Student Self-Assessments of Their Collaborative Projects

Mark the answer that best describes your experience in Generation Y:	Strongly Agree	Agree	Disagree	Strongly Disagree	Not sure, N/A
I completed my project.	75.0	25.0	0.0	0.0	0.0
I am proud of my project.	75.0	25.0	0.0	0.0	0.0
As a result of my project, other students learned about technology.	36.0	40.0	4.0	4.0	16.0
As a result of my project, other students learned about a subject (e.g. history, math, English, etc.)	44.0	44.0	0.0	0.0	12.0
The feedback about my project proposal I got online was helpful.	32.0	40.0	16.0	0.0	12.0
My partner-teacher's expectations of me were clear and realistic.	40.0	44.0	0.0	8.0	8.0
My partner-teacher was able to meet with me regularly.	32.0	48.0	12.0	4.0	4.0
My partner-teacher and I worked together well as a team.	44.0	44.0	0.0	8.0	4.0
Overall, Generation Y was a good experience.	84.0	16.0	0.0	0.0	0.0

(percentages of approximately 25 reporting)

Partner-Teacher Outcomes

At the end of each Generation Y class, participating Partner Teachers are asked to complete a survey about their experiences working with a GenY student on a collaborative, curriculum-building project. Partner teachers are asked about changes in their attitudes and use of technology, the amount of time spent on their projects, and their ratings of a number of dimensions related to the new curriculum units or lesson plans. Their responses are summarized in the tables below, along with a listing of the project titles.

Table 15 Self-Assessed Change In Computer Use by GenY Partner Teachers

How has the frequency of the following changed as a result of your involvement with Generation Y?	More Frequently	Same Frequency	Less Frequently
You use computers to prepare for class, maintain class records, or do other school-related work.	0.0	100.0	0.0
You use computers for personal business, learning, or fun.	20.0	80.0	0.0
You use e-mail.	0.0	100.0	0.0
You use the World Wide Web.	40.0	60.0	0.0
Your students use computers during your classes.	100.0	0.0	0.0
Your students use computers outside of class to complete assignments for your class.	20.0	80.0	0.0

(percentages of approximately 5 reporting)

Table 16 Self-Assessed Change In Partner Teachers' Comfort Using Technology

How has your comfort level with the following changed as a result of your involvement with Generation Y?	More comfortable	Same level of comfort	Less comfortable
Using computers	80.0	20.0	0.0
Integrating computers into the curriculum	100.0	0.0	0.0
Helping students use computers	60.0	40.0	0.0
Using e-mail	0.0	100.0	0.0
Using the World Wide Web	20.0	80.0	0.0

(percentages of approximately 5 reporting)

Table 17
Time Spent by Partner Teachers on Collaborative Projects

	2 hrs or	3-5	5-8	> 8
	less	hours	hours	hours
Partner Teachers: How much time, in total, did you spend working with your GenY student this semester?	0.0	20.0	60.0	20.0

(percentages of approximately 5 reporting)

Table 18
Partner Teacher Evaluations of the Generation Y Experience

Please indicate your level of agreement with each of the following:	Strongly Agree	Agree	Disagree	Strongly Disagree
My student-partner completed his or her project.	100.0	0.0	0.0	0.0
My student-partner's project was of high quality.	100.0	0.0	0.0	0.0
I will use the lesson/Web page/presentation with which my student-partner helped in the future.	60.0	40.0	0.0	0.0
I would like to continue developing or refining this project in the future.	20.0	80.0	0.0	0.0
Choosing a project was relatively easy.	80.0	20.0	0.0	0.0
My role as a partner-teacher was clear to me.	80.0	20.0	0.0	0.0
As a consequence of Generation Y, I learned more about technology.	80.0	20.0	0.0	0.0
As a consequence of Generation Y, my students learned about technology.	100.0	0.0	0.0	0.0
As a consequence of Generation Y, my students learned about some content area.	100.0	0.0	0.0	0.0
Generation Y is a good method for providing support and assistance to teachers as they integrate technology into their classes.	100.0	0.0	0.0	0.0
My experience in Generation Y this semester will change the way I teach some lessons in the future.	100.0	0.0	0.0	0.0
I would like to work with another Generation Y student in the coming year.	0.0	100.0	0.0	0.0
I will continue rebuilding my lesson plans to make more use of educational technology.	100.0	0.0	0.0	0.0

(percentages of approximately 5 reporting)

Table 19
Partner Teacher Attitudes Toward Educational Computing

Please rate your	rate your			Due to my experience with Generation Y, I:			
opinions regarding the use of technology in education:	Strongly Agree	Agree	Disagree	Strongly Disagree	Agree more than before	Agree less than before	Haven't changed my opinion
I see definite benefits to students from integrating technology into education.	40.0	60.0	0.0	0.0	80.0	0.0	20.0
Technology facilitates positive changes in classroom teaching and learning practices.	20.0	80.0	0.0	0.0	80.0	0.0	20.0
I want to learn more about using new technologies.	66.7	33.3	0.0	0.0	50.0	0.0	50.0

(percentages of approximately 5 reporting)

Project List

Table 20 Archived Collaborative Projects

School	Partner-Teacher	Project Name
Lyman Gilmore Middle Sch		Exponents: An eZedia Project
Lyman Gilmore Middle Sch	Barry Kerr	Rocks and Minerals
Lyman Gilmore Middle Sch	Barry Kyle	Find the Least Common Denominator
Lyman Gilmore Middle Sch	Mr. Barry Kerr	How to Make a Science Fair Project; A PowerPoint Project
Lyman Gilmore Middle Sch	Mr. Kyle	Math Probability: a PowerPoint Presentation
Lyman Gilmore Middle Sch	Mr. Kyle	Orders of Operation: An eZedia Project
Lyman Gilmore Middle Sch	Mr.Kerr	The Big Old Sun - A PowerPoint Presentation
Lyman Gilmore Middle Sch	Mrs. Perez	Maps Linking the Ancient World: An eZedia Project
Lyman Gilmore Middle Sch	Mrs. Perez	The Han Dynasty : A PowerPoint Presentation
Lyman Gilmore Middle Sch	Mrs. Truex	Main Story Problem-A PowerPoint Presentation
Lyman Gilmore Middle Sch	Mrs.Hansen	Origin of Words: A PowerPoint Presentation
Lyman Gilmore Middle Sch	Mrs.Jones	Geometry of a Circle: PowerPoint Presentation
Lyman Gilmore Middle Sch	Ms Hansen	Vocabulary Words: An eZedia Project
Lyman Gilmore Middle Sch	Ms. Truex	Theme and Subject: An eZedia Project
Lyman Gilmore Middle Sch	Ms.Jones	Measurement Skills: An eZedia Project