Generation Y
2004-2005 Evaluation Data

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

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This report includes data from the following schools:

Imperial County (ICOE)

De Anza Junior High School, Calexico Unified School District
Mountain Empire Sr. High School, Mountain Empire Unified School District
William Moreno Jr. High School, Calexico Unified School District

Generation Y Evaluation Results

On the following pages you will find a report containing data from the Generation Y classes in your area. Depending on how your Generation Y classes are funded, the data may be from a single school, an entire district or state, or some other grouping of schools. These data have been prepared for you by the Evaluation Program of the Northwest Regional Educational Laboratory (www.nwrel.org/evaluation), as part of the service provided to your schools by Generation YES.

The information in this report comes from several sources, all collected online through the Generation Y web site. The report contains tabulations of results from the following online data collection forms:

- Surveys of participating students at the beginning and end of each class
- Project descriptions completed by participating students during each class
- Reports from Generation Y Coordinating Teachers at the end of each class
- Note: Surveys completed by Gen Y teachers at the end of each class are normally included in this report. These surveys were not available for 2004-2005 because of a problem with a new database system; they will be back next year.

We hope you find this information interesting and useful. Generation Y is aimed at helping you integrate technology in your classrooms, while engaging students in meaningful educational activities that support teachers, other students, administrators, and your community. The data presented here should give you a snapshot of what your students and teachers have been doing in their Generation Y classes and projects, and how well these activities are supporting technology integration and student engagement in your schools.

An additional report summarizing data on Generation Y classes across the nation is also available. By comparing national data to the information from your area, you may be able to notice differences, strengths, or weaknesses in your local schools that are of interest.

Overview of Generation Y

Generation Y is a program which uses partnerships between students and teachers to integrate modern computer technologies into the classroom. The program promotes the effective use of educational technology in schools, develops opportunities for student leadership, and fosters a collaborative, learning community atmosphere in schools. Rather than teaching technology skills to teachers and hoping they will use these skills to improve their students' learning, Generation Y trains students to form working partnerships with teachers in order to improve teaching and learning in their schools. Students become agents of change, assuming responsibility for helping to improve the educational resources available to themselves and their classmates.

GenY students learn technology skills with an emphasis on applying these skills to a real-world problem: helping teachers use technology to deliver more effective lessons. Students and partner teachers learn how telecommunications tools, the Internet, digital imaging and presentation tools, and other technologies can enhance lesson plans and curriculum units. Many Generation Y students

and partner teachers also learn about their state academic standards and learning goals, and the process of aligning classroom activities with these goals. Each GenY student is paired with a partner teacher (or an administrator, librarian, counselor or other educator), who decides what lesson plan, curriculum unit, or other school need will be addressed by a collaborative, technology-enriched curriculum project, which the partner teacher and the GenY student produce together. These projects are then used in the partner teacher's regular classroom, or in the library, administrative offices, etc. Through this model, participating educators receive individualized support as they strengthen their use and integration of new technologies. Students learn technology, communication, collaboration, and project management skills in an authentic, personally meaningful context, and many go on to further extend their skills through advanced school or community service projects.

The program was developed in the Olympia, Washington School District, with a five-year award in 1996 from the U.S. Department of Education's Technology Innovation Challenge Grant program. Numerous state and local grants as well as corporate sponsorships have also supported the development of the instructional model and materials, as well as dissemination of the model to schools outside Olympia. Currently, Generation Y classes are provided through the Generation YES organization to schools nationwide. The program provides a model which can be customized to fit a wide range of grade levels, technology infrastructures, scheduling requirements, interests, and skill levels of participants. In the summer of 2000, the program was awarded "Exemplary" status by the department's Expert Panel on Educational Technology, a distinction given to only two of 134 programs.

Data from the nationwide project indicate that the program can be an effective alternative for schools wishing to integrate technology into their regular curriculum and increase their use of project-based, student-centered learning practices. The model provides individualized support for educators who wish to increase their use of technology without becoming distracted from the essence of their jobs --building and delivering effective curriculum units and lesson plans. Generation Y achieves this by giving students experience with educational technology, communication skills, and information literacy, then allowing students to act as responsible partners with their teachers in building new curriculum materials and 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, and to develop more advanced abilities to integrate technology in standards-based lessons, projects and curriculum units. Both teachers and students have reported that they gained meaningful, authentic experience developing skills in technology use, collaboration, project management, and information literacy, while contributing to the improvement of their schools. Most have found the Generation Y model to be an effective professional development strategy for teachers, as well as an effective approach to increasing student engagement, student learning, and student leadership.

For those unfamiliar with the program, the term "partner-teacher" is used to refer to the classroom teachers who are each paired with a Generation Y student. These teams collaborate in the production and delivery of a lesson plan or unit, using modern telecommunications technology, to the teacher's

class. The term "Generation Y teacher" or "Generation Y coordinating teacher" refers to the teacher who works with all Generation Y students in a school, as they learn skills and knowledge through the course activities and design their projects with partner teachers. The GenY teacher also helps coordinate the relationships between the Generation Y students and their partner teachers, and facilitates the process of developing the collaborative projects. The core of the model is the Generation Y class and the process of developing the collaborative projects. The core of the model is the Generation Y class and the collaborative projects which GenY students and their partner teachers produce for students in the partner teachers' class, as depicted in Figure 1.
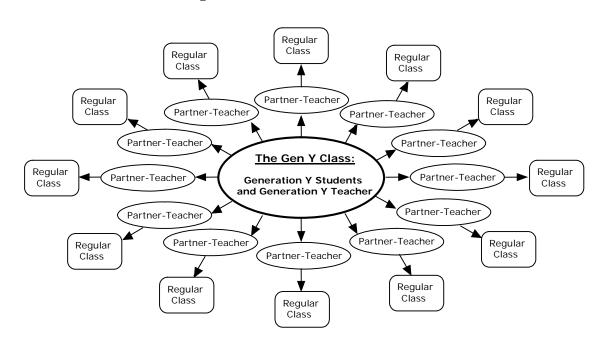
Figure 1. The Generation Y Class

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 resources, 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 2004-2005 school year, are presented in the tables on the following pages.

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 1
Participating Generation Y Students by Gender

Gender	Percentage of Students (of 48 reporting)
Male	29.2
Female	70.8

Table 2
Participating Generation Y Students by Ethnicity

Ethnicity	Percentage of Students (of 48 reporting)
Caucasian	27.1
African American	0.0
Hispanic	58.3
Asian	6.3
Pacific Islander	6.3
Native American/Native Alaskan	2.1
Other	0.0

Table 3
Computer Access at Home by Generation Y Students

At home do you have access to:	Yes	No
A computer	93.8	6.3
The Internet	83.3	16.7
Send and receive email	79.2	20.8

(percentages of approximately 48 reporting)

Table 4
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	52.1	35.4	8.3	0.0	4.2
At school	74.5	12.8	2.1	8.5	2.1

(percentages of approximately 48 reporting)

Table 5
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	12.5	22.9	18.8	45.8
Search the Internet	0.0	4.2	8.3	87.5
Send and receive email	2.1	14.6	8.3	75.0
Use PowerPoint or other presentation software	14.6	25.0	37.5	22.9
Troubleshoot basic computer problems	29.2	43.8	20.8	6.3
Use a scanner to digitize a picture	27.1	31.3	29.2	12.5
Use a digital camera	6.3	20.8	29.2	43.8
Create a web page or web site	41.7	27.1	27.1	4.2
Touch-typing at least 15 words/minute	8.3	8.3	20.8	62.5

(percentages of approximately 48 reporting)

Table 6
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	29.2	18.8	6.3	14.6	31.3
Language Arts, Reading or English	25.0	10.4	20.8	20.8	22.9
Science	41.7	10.4	16.7	10.4	20.8
Social Studies, Geography or History	36.2	10.6	34.0	6.4	12.8

(percentages of approximately 48 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 7
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	5.6	11.1	19.4	2.8	61.1
Using word processing software	0.0	22.9	2.9	28.6	25.7
Searching the Internet	2.8	0.0	13.9	19.4	63.9
Sending and receiving e-mail	0.0	13.9	19.4	33.3	33.3
Using PowerPoint or other presentation software	5.6	11.1	22.2	16.7	44.4
Troubleshooting basic computer problems	16.7	47.2	19.4	5.6	11.1
Using a scanner to digitize a picture	19.4	33.3	30.6	0.0	16.7
Using a digital camera	0.0	25.0	33.3	22.2	19.4
Creating a Web page or Web site	13.9	11.1	33.3	0.0	41.7

(percentages of approximately 37 reporting)

Table 8
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	69.7	33.3
GenY student helped other students search the Web for information on a class topic	57.6	0.0
GenY student developed an educational presentation using PowerPoint, HyperStudio, or other software	90.9	39.4
GenY student taught technology skills to a teacher	84.8	9.1
GenY student taught technology skills to other students	63.6	18.2
Other	9.1	0.0

(percentages of approximately 33 reporting)

Table 9
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?	3.1	56.3	40.6

(percentages of approximately 32 reporting)

Table 10
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.	63.9	33.3	0.0	0.0	2.8
I am proud of my project.	66.7	30.6	0.0	0.0	2.8
As a result of my project, other students learned about technology.	28.6	40.0	5.7	0.0	25.7
As a result of my project, other students learned about a subject (e.g. history, math, English, etc.)	52.8	38.9	0.0	0.0	8.3
The feedback about my project proposal I got online was helpful.	38.9	47.2	0.0	0.0	13.9
My partner-teacher's expectations of me were clear and realistic.	41.7	52.8	2.8	0.0	2.8
My partner-teacher was able to meet with me regularly.	33.3	50.0	11.1	0.0	5.6
My partner-teacher and I worked together well as a team.	31.4	60.0	0.0	2.9	5.7
Overall, Generation Y was a good experience.	85.7	14.3	0.0	0.0	0.0

(percentages of approximately 35 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 11
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.	56.5	43.5	0.0
You use computers for personal business, learning, or fun.	47.8	52.2	0.0
You use e-mail.	47.8	52.2	0.0
You use the World Wide Web.	39.1	60.9	0.0
Your students use computers during your classes.	40.9	59.1	0.0
Your students use computers outside of class to complete assignments for your class.	56.5	43.5	0.0

(percentages of approximately 23 reporting)

Table 12
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	39.1	60.9	0.0
Integrating computers into the curriculum	59.1	40.9	0.0
Helping students use computers	39.1	60.9	0.0
Using e-mail	43.5	56.5	0.0
Using the World Wide Web	39.1	60.9	0.0

(percentages of approximately 23 reporting)

Table 13
Time Spent by Partner Teachers on Collaborative Projects

	2 hrs or less	3-5 hours	5-8 hours	> 8 hours
Partner Teachers: How much time, in total, did you spend working with your GenY student this semester?	17.4	8.7	43.5	30.4

(percentages of approximately 23 reporting)

Table 14
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.	65.2	34.8	0.0	0.0
My student-partner's project was of high quality.	60.9	39.1	0.0	0.0
I will use the lesson/Web page/presentation with which my student-partner helped in the future.	56.5	39.1	4.3	0.0
I would like to continue developing or refining this project in the future.	56.5	43.5	0.0	0.0
Choosing a project was relatively easy.	39.1	47.8	13.0	0.0
My role as a partner-teacher was clear to me.	39.1	56.5	4.3	0.0
As a consequence of Generation Y, I learned more about technology.	21.7	69.6	4.3	4.3
As a consequence of Generation Y, my students learned about technology.	34.8	60.9	0.0	4.3
As a consequence of Generation Y, my students learned about some content area.	39.1	60.9	0.0	0.0
Generation Y is a good method for providing support and assistance to teachers as they integrate technology into their classes.	52.2	47.8	0.0	0.0
My experience in Generation Y this semester will change the way I teach some lessons in the future.	52.2	47.8	0.0	0.0
I would like to work with another Generation Y student in the coming year.	43.5	47.8	8.7	0.0
I will continue rebuilding my lesson plans to make more use of educational technology.	60.9	34.8	4.3	0.0

(percentages of approximately 23 reporting)

Table 15
Partner Teacher Attitudes Toward Educational Computing

Please rate your opinions regarding the use of technology in education:	Strongly Agree	Agree	Disagree	Strongly Disagree	Due to my experience with Generation Y, I:		
					Agree more than before	Agree less than before	Haven't changed my opinion
I see definite benefits to students from integrating technology into education.	60.9	39.1	0.0	0.0	82.4	0.0	17.6
Technology facilitates positive changes in classroom teaching and learning practices.	56.5	43.5	0.0	0.0	88.9	0.0	11.1
I want to learn more about using new technologies.	65.2	34.8	0.0	0.0	82.4	0.0	17.6

(percentages of approximately 23 reporting)

Project Category List

Table 16
Classes/Audiences Served by Partner Teachers Who
Provided Evaluative Feedback on Generation Y Collaborative Projects

Project Category	Number	Percentage
Math	13	56.5
Science	3	13.0
Social Studies	3	13.0
Other	2	8.7
English/Language Arts	1	4.3
Health/PE	1	4.3

Project List

Table 17
Archived Collaborative Projects

School	Partner-Teacher	Project Name
De Anza Junior High School	Carlos Canez	Rational Exponents - Microsoft PowerPoint Presentation
De Anza Junior High School	Carlos Montano	Algebra Tiles - Microsoft PowerPoint Presentation
De Anza Junior High School	Christina Villanueva	Cell: Basic Units of Life - WebSite
De Anza Junior High School	Deborah Whalen	Bill of Rights - Microsoft PowerPoint Presentation
De Anza Junior High School	Gabino Duenas	Light and Living Things - Website
De Anza Junior High School	Gildardo Rodriguez	Quadratic Equations and Functions - MS PowerPoint
De Anza Junior High School	John Glaser	Inequalities - Microsoft PowerPoint
De Anza Junior High School	Juan Rodriguez	The Math Club's Dilemma - an iMovie
De Anza Junior High School	Luz Moreno	Graphing Linear System - Microsoft PowerPoint
De Anza Junior High School	Maria Vega	Jeopardy Math Game - Microsoft PowerPoint
De Anza Junior High School	Maritza Montano	Mean, Median and Mode: Microsoft PowerPoint
De Anza Junior High School	Pedro Quintanilla	Pythagorean Theorem - Microsoft PowerPoint
De Anza Junior High School	Ronda Lorente	Community Workers - A PowerPoint Presentation
De Anza Junior High School	Ronda Lucas	Food Groups - A PowerPoint Presentation
De Anza Junior High School	Rosa Martinez	Accelerated Reading - Website
De Anza Junior High School	Velino Herrera	Circulation and Respiration - Microsoft PowerPoint
Mountain Empire Sr. High S	David Etnire	Mr. Etnire's Website
Mountain Empire Sr. High S	Evelyn Nusic	Dr. Nusics Biology Website
Mountain Empire Sr. High S	Jeffery Arroyo	Redhawk Success 'The Opportunity Program' - A Website
Mountain Empire Sr. High S	Kari Maxwell	Mountain Empire Junior High Website
Mountain Empire Sr. High S	Michelle Marlowe	Mrs. Marlowe's Website
Mountain Empire Sr. High S	Mr. Covey	Mr. Covey's Website
Mountain Empire Sr. High S	Mrs. McGinnis	The Library Bookworms Website
Mountain Empire Sr. High S	Mrs. Sherbondy	Mrs. Sherbondy's Website
Mountain Empire Sr. High S	Mrs. Wagner	Mountian Empire High School Counseling Website
Mountain Empire Sr. High S	Ms. Elaine Duckworth	Ms. Duckworth's Website
Mountain Empire Sr. High S	Natalie Priester	Ms. Priester's Website
Mountain Empire Sr. High S	Rick Abood	Mr. Abood's Website
Mountain Empire Sr. High S	Roger Wynn	Mr. Wynn's Website
William Moreno Jr. High Sc	Diego Romero	Teaching 'High Point' Through PowerPoint
William Moreno Jr. High Sc	Eduardo Razo	Math with Interwrite Wireless School Pad
William Moreno Jr. High Sc	Elisa Ramirez	PowerPoint on Angles and Construction
William Moreno Jr. High Sc	Lizeth Lopez	Showing Students to Solve Equations using PowerPoint
William Moreno Jr. High Sc	Martha Guillen	Presentation on the Civilizations of the Americas
William Moreno Jr. High Sc	Martha Guillen	William Moreno Junior High Writing
William Moreno Jr. High Sc	Mr. Bautista	Digital Math
William Moreno Jr. High Sc	Mr. Eaton	Square Roots, Exponents, and Radicals
William Moreno Jr. High Sc	Mr. Mendoza	Digital Math Online
William Moreno Jr. High Sc	Rosa Martin Del Campo	Teaching Lesson 6.0-7.0 Using the Interwrite Wireless Pad
William Moreno Jr. High Sc	Rosalie Carrillo	PowerPoint Presentation on the Eight Parts of Speech
William Moreno Jr. High Sc	Rosana Martin Del Camp	Teaching Distributive Property with the Interwrite Wireless Pads
William Moreno Jr. High Sc	Tom Eaton	Equations on PowerPoint
William Moreno Jr. High Sc	Tom Eaton	Exponents-A PowerPoint Presentation
William Moreno Jr. High Sc	Tom Eaton	Graphing Through PowerPoint
William Moreno Jr. High Sc	V. Bielma	Introduction to Digital Math Online