Verizon California Technology Literacy
Interim Project Evaluation
Jan. – June 2006

Woodside Research Consultants
Dr. Steven Schneider
July 1, 2006

Verizon California Technology Literacy Project

Interim Project Evaluation — Jan. – June 2006

Woodside Research Consultants

Dr. Steven Schneider

July 1, 2006

Developed and implemented by Generation Yes Corporation (www.genyes.com), TechYES is a student-centered way for schools, after-school programs, and community organizations to offer a technology certification program to students in grades 6-9 The focus of this evaluation is California's Central Valley project, starting in January, 2006. This TechYES program was funded by Verizon Communication to support the non-profit Generation Y's delivery of the TechYES program to 10,000 7th grade students in 45 underserved schools.

TechYES students take on the major responsibility for becoming technologically proficient by creating projects that meet state and local technology proficiency requirements (NCLB technology literacy requirements). As part of TechYES, a structured peer-mentoring program assists the teacher advisor, and provides the peer-mentors (in this case 8th grade students) opportunities intended to further strengthen the program and enhance the peer mentors' leadership and technology skills.

TechYES materials provide a framework to assist students in developing two technology projects that are intended to be creative and personally involving. These projects are the basis for the TechYES evaluation and certification. The program includes all necessary resources: individual student guidebooks, customized teacher/advisor materials, handouts and resources, access to a support website, and certificates of completion.

The evaluation of the TechYES project was conducted by Woodside Research Consortium and directed by Dr. Steven Schneider. The evaluation team had limited resources to conduct this evaluation and therefore the primary data source was extensive online surveys administered to all major stakeholders in the TechYES program, including the teacher advisors, peer-mentors, and participating students. The survey results were triangulated where possible to get multiple perspectives on targeted questions. The evaluation team attended one of the TechYES training sessions to become familiar with the student technology certification process.

The overall return rate for the surveys varied by group. The TechYES advisors return rate was 89% (39 /44 advisors responded). The Peer Mentor (42/301≈14%) and Student participant (524/1498≈35%) return rates were much lower since they were given a general invitation to participate in the survey by the Generation Y staff through a link on their website. The advisors were sent direct emails by the evaluation team with individualized links to the survey that made it possible to send follow-up emails to increase the return rate. Completing the survey was part of the original agreement to participate as an advisor in the TechYES program.

The following section of this evaluation report summarizes the survey findings. The surveys used for this evaluation were designed with input from the Generation Y leadership. The "technology skills and knowledge" sections are aligned with ISTE standards (see Appendix). Survey responses were downloaded and analyzed using *Data Desk 6 Professional*. This statistical program allowed the evaluation team to develop scales for individual questions, such as "enhancement of technology knowledge and skills," to provide a broader picture of impact. Open-ended response items were coded using a schema that grouped like-responses so the evaluation team could provide qualitative examples of responses representing more than one person's opinion, and avoid weighting any individual response.

Before reading this summary it is useful to revisit the project's hypotheses:
- The TechYES model can narrow the digital divide.
- The TechYES model can improve academic as well as technology proficiency, and has other benefits for participants.
- Middle school students can be relied on as tutors and evaluators.

The evaluation team found that the survey data supports all the project's hypotheses.

TechYES Advisors' Survey Results Summary:

The advisors overwhelmingly felt that the TechYES program was valuable. Ninety percent of the advisors agree or strongly agree that TechYES is an effective way to ensure that middle school students are technology literate, and no advisors disagreed. Seventy four percent of advisors agree or strongly agree that TechYES is an effective strategy for "bridging the digital divide." Eighty five percent believe their school will continue a technology literacy program next year, and 90% believe they will be using TechYES to meet this goal.

The biggest weakness of the program appears to be the lack of sufficient time for students to complete their two TechYES projects (49% of advisors thought there was not enough time). However, in all surveyed areas of TechYES Support and Training, advisors feel that they were given sufficient resources. Additionally, the efficacy of the program may

have been supported by the fact that almost all teachers (94%) allowed students to use TechYES projects as class assignments, and most (72%) of the TechYES programs were integrated as part of a regularly scheduled class, instead of simply being an add-on.

The Advisors believe that TechYES students dramatically increased their knowledge and skills in software, hardware, network use, internet safety and netiquette, and evaluating web resources through participation in TechYES. A paired t-test indicates that the perceived change in students' knowledge and skills is significant ($t = 8.075$, $p < .0001$).

Students' technology skills

Before TechYES	20%
After TechYES	76%
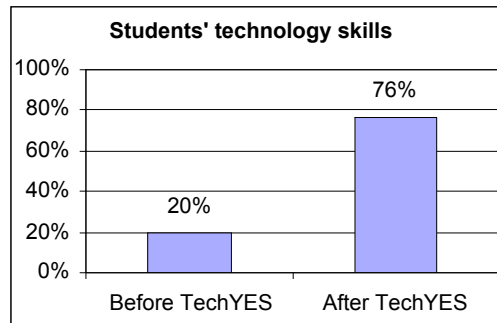
After TechYES, 54% more advisors believed that TechYES students had well-developed or expert technology skills. Additionally, 39% of advisors thought that students had well-developed or expert academic skills before TechYES, while 79% believed so after TechYES.

The advisors valued the Peer Mentors in the TechYES program. Approximately 70% of advisors agreed or strongly agreed that the Peer Mentors were essential to TechYES success, and that middle school students are mature enough to be successful Peer Mentors.

Similarly dramatic results were found for advisors' ratings of Peer Mentors. Advisors overwhelmingly believed that TechYES not only improved the technology skills of Peer Mentors (29% to 90%), but also allowed mentors to improve their skills in tutoring, project/student evaluation, and leadership (14% to 78%). Additionally, 79% of advisors believed that mentors at least somewhat improved their general academic skills, interpersonal skills, and self-esteem.

The advisors also felt more confident about their own abilities and skills after their TechYES experience. Advisors rated their skills before and after TechYES for their ability to teach technology, technology skills, use of project-based learning, collaborating with students, and authentic assessment. The results were highly significant, as the aggregated results of their ratings for their skills changed from 65% of advisors being confident of their skills or able to teach others those skills, to 93% of advisors being confident or able to teach others after their TechYES experience.

In their comments about the strengths of the TechYES program, most advisors felt that students were afforded the opportunity to improve their technology skills. As one teacher stated, "TechYES is an excellent structure for teaching technology literacy to all students." Another teacher expressed that the program "provided students who never used a computer before access to one." One overall weakness cited by advisors was the lack of motivation of students and/or mentors, as one teacher found that "most students did not take it seriously" and another found that the "dedication and diligence of the Peer Mentors was lacking." Many advisors also commented that there was simply "not enough time."

Overall, the advisors found the program met or exceeded their expectations, and they would use the TechYES program in the future.

TechYES Peer Mentors' Survey Results Summary:

On average, peer mentors tutored 17 students, evaluated 13 projects, worked with 8 students who were certified and worked with 5 students who did not complete two projects. 76% of mentors met with students at least once a week. Mentors seemed to value the TechYES program, as only 7% of mentors believed that their school should not continue TechYES next year.

Seventy four percent believe that TechYES is an effective way to ensure that middle school students are technologically literate. Peer mentors felt very positive about TechYES support and training, though 34% thought there was not enough time for students to complete their two projects, and about one-quarter of the mentors did not think the website was a valuable resource for students. Most mentors agreed or strongly agreed that Peer Mentors were essential to TechYES success (83%), that middle school students were mature enough to be successful Peer Mentors (72%), and that they liked being Peer Mentors (81%). A less substantial portion of mentors agreed or strongly agreed that being a Peer Mentor helped them with schoolwork (40%) and about half (51%) thought that being a Peer Mentor helped them generally to do better in school. Also, about half of the mentors agreed or strongly agreed that the students with whom they worked learned more about school subjects as a result of their TechYES projects.

Peer Mentors showed statistically significant improvement in their own skills in technology, tutoring, project/student evaluation, and leadership due to the TechYES program, with 28% more mentors saying they had well-developed or expert skills after TechYES ($t = 5.191$, $p < .0001$).

Peer Mentors' skills
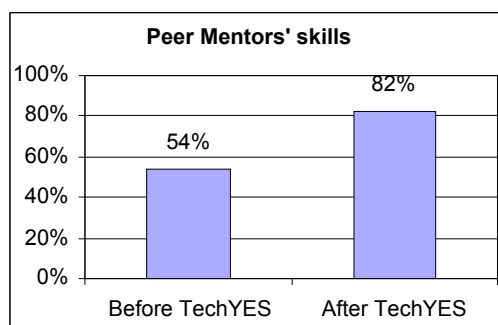
Fifty nine percent of mentors thought their academic skills, interpersonal skills, and self-esteem improved at least a little after their TechYES experience. Mentors' ratings of the advisors before and after TechYES support the advisors' ratings of significantly improving their skills in and ability to teach technology, project-based learning, collaboration with students, and authentic assessment.

Most mentors thought that TechYES was an effectual strategy in increasing technology skills, by helping students "know computers better" and learn "a lot more than they knew before." Several mentors also reacted positively to the relational aspects of TechYES, as they were "able to help others" and "make more friends." The weaknesses found by the Mentors mirrored those of the advisors – time and motivation. Mentors stated, "We needed a little bit more time," and "it seemed too short," and "it felt a little rushed." Some mentors said, "not very many people cared about it," or "they don't want to work," and "a few don't take it seriously so you can probably make it more fun."

TechYES Student Survey Results Summary:

Most students in the TechYES program finished two TechYES projects (66%) and of those who did not, most (79%) planned on completing the second project.

Sixty percent of students felt that TechYES was a good way to help middle school students become technology literate. About half of students (51%) agreed or strongly agreed that there was satisfactory program support, training and resources. Thirty percent of students agreed or strongly agreed that working on TechYES projects helped with other classes they were taking. Students were fairly split in their opinions of the Peer Mentors, with those agreeing or strongly agreeing that middle school students were mature enough to be successful Peer Mentors at 58%, that Peer Mentors helped them complete their TechYES projects at 42%, that they liked being evaluated by a Peer Mentor at 36%, and that they received good advice and assistance from Peer Mentors at 42%. Fifty one percent of students indicated that they would at least somewhat like to be a Peer Mentor in the future.

Students felt that they increased their knowledge and skills in software, hardware, network use, internet safety and netiquette, and evaluating web resources. Twenty four percent more students believed they had well-developed or expert skills after their TechYES experience ($t = 12.666$, $p < .0001$).
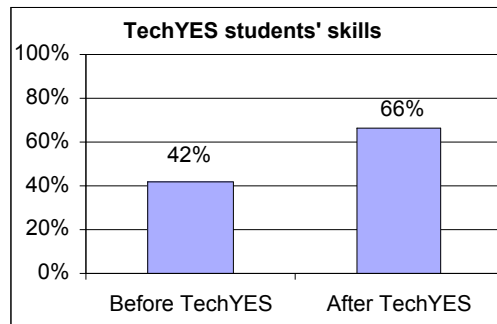
Fifty seven percent of students believed they had increased their academic skills, interpersonal skills and self-esteem at least a little through the TechYES program. In the 29 specific skill areas surveyed, it was found that web-related skills (organizing email, browsing the web and using search engines) were the areas in which students most highly indicated that they "knew it before," while an average of 39% of students reported that, through TechYES, they had just learned or improved upon previous knowledge of the given skills (creating graphs, using scanners or cameras, creating PowerPoint presentations, creating web pages, etc.).

Students generally commented on their enjoyment of being able to use technology, of "finally getting to use computers to make power points and movies," "learning things besides just playing games," and "how to learn about making a website." Many students liked "just the fact that you chose your own topic" because they "liked being able to do a project on a famous football player" or "making a powerpoint of fashion." However, students also felt that time was an issue, since "the projects took really long to do!" and "if I had more time I would have done two projects but I didn't." Many students also found the TechYES program to be "boring" and gave comments such as, "I didn't learn anything because I already knew or had done it before."

Overall Summary of Program Impact:

TechYES advisors, peer mentors and students felt that there was a significant positive change in the knowledge and skills of all those involved in TechYES. Advisors saw growth in their students' technology skills, in peer mentors' skills as effective leaders and tutors, and in their own abilities to teach technology. Peer mentors valued their role in the TechYES program, believed that middle school students were mature enough to take on that role, and enjoyed being Peer Mentors. They believed that TechYES allowed them

to greatly improve their skills in technology, tutoring, project/student evaluation, leadership, academics and interpersonal interactions. Many mentors also felt that TechYES helped to improve their self-esteem. Students generally report improvement in their technology skills, though the degree of improvement sometimes was not very dramatic because they had prior knowledge and skills in technology.

According to advisors, peer mentors and students in the TechYES program, most TechYES projects were completed in the areas of Social Studies and Science. Projects were least common in the areas of Foreign Language, Special Education, and ESL/ELL. The strongest emphasis for the TechYES projects was teaching or learning core curriculum. The majority of projects were student designed instead of teacher-designed, and did not utilize much support from parents or faculty. The overall programmatic area of weakness shared across advisors, peer mentors and students, was the lack of sufficient time for students to complete their projects. This was a factor because GenYes did not receive the money until the second semester of the school year. Normally the project would begin in September and therefore all students would have adequate time to complete the program.

The majority of advisors, peer mentors and students in the TechYES program agree that TechYES is a productive way to ensure that middle school students are technology literate and that TechYES is an effective strategy to bridge the digital divide. Based on the survey results, overall the TechYES strategy positively impacted participants (advisors, mentors, and students) at all levels: technology knowledge, skills, and their ability to utilize this knowledge.

TechYES Advisor Survey
May – June 2006

Woodside Research Consortium collected this data under the direction of Dr. Steven A. Schneider.

This survey was completed by the TechYES advisor in 39 of the 45 participating schools in the 2006 Verizon California Technology Literacy Project (80% response rate). The adult TechYES Advisor is generally a teacher and is responsible for:

- Overall implementation of TechYES in their school
- Recruiting student peer mentors to support TechYES
- Completing the final assessment to ensure students have met the program's technology proficiency standards
- Communicating with Generation Y national staff to obtain Verizon Technology Literacy Certificates
- Ensuring that all students in a school are technology literate thereby meeting the NCLB goal of every 8th grader in the United States being technology literate.

By December of 2006, approximately 10,000 TechYES students in these 45 schools will complete two projects showing they meet TechYES and the ISTE NETS standards. As of June 30, 2006 1,498 students had completed their projects and received certificates. The remaining TechYES students are scheduled to complete TechYES certification by December.

Survey Results

5. Is your school likely to continue a technology literacy program next year?	Number of Responses	Response Ratio
Yes - go to 6	33	85%
No - go to 8	1	3%
Not Sure	5	13%
Total	39	100%

6. If so, is your school likely to use TechYES to meet this goal?	Number of Responses	Response Ratio
Yes	35	90%
No	0	0%
Not Sure	4	10%
Total	39	100%

8. In what school do you work?		Number of Responses	Response Ratio
Ahwahnee Middle School		1	3%
Alpha Technology Middle School		0	0%
Boron Jr./Sr. High School		1	3%
Brock Elliott Elementary School		1	3%
Burrel Union Elementary School		0	0%
Christa McAuliffe Middle School		1	3%
Coalinga Middle School		1	3%
Coarsegold Elementary School		1	3%
Colony Oak Elementary School		0	0%
Creekside Middle School		1	3%
Delta Island Elementary School		1	3%
Dunlap Elementary School		1	3%
Edison Computech		0	0%
Edison Middle School		2	5%
El Capitan Middle School		1	3%
El Monte Jr. High School		1	3%
El Tejon School		1	3%
Foothill Farms Junior High School		1	3%
General Shafter Elementary School		0	0%
Haven Drive Middle School		1	3%
Henderson Community Day School		1	3%
Island Elementary School		1	3%
Jack G. Desmond Middle School		1	3%
James Monroe Middle School		1	3%
Jonas Salk Middle School		1	3%
Kastner Intermediate School		1	3%
Keyes Charter School		2	5%
Knights Ferry Elementary School		0	0%
Lake Don Pedro Elementary School		1	3%
Lakeside Elementary School		1	3%
Lee Middle School		1	3%
Liberty Middle School		1	3%
Lincoln Junior High School		2	5%
Livingston Middle School		1	3%
Raymond-Knowles Elem. School		1	3%
Reef Sunset Middle School		1	3%
Richland Junior High School		0	0%
Sherman Thomas Charter		1	3%
Sonora Elementary School		1	3%
Summerville Elementary		0	0%
Teel Middle School		1	3%
Thomas Jefferson Middle School		1	3%
Washington Intermediate School		0	0%
Wawona Middle School		1	3%
Williams (Earle E.) Middle School		1	3%
Total		39	100%

9. Please rate the extent to which you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A
1. a. TechYES is a good way to ensure middle school students are technology literate.	31% 12	59% 23	10% 4	0% 0	0% 0	0% 0	0% 0
2. b. There was enough time for the students to complete their two projects.	13% 5	18% 7	21% 8	23% 9	18% 7	8% 3	0% 0
3. c. The initial TechYES training workshop provided necessary background information for the adult advisor.	28% 11	46% 18	26% 10	0% 0	0% 0	0% 0	0% 0
4. d. The initial TechYES training workshop provided necessary background information for the Peer Mentors.	18% 7	36% 14	36% 14	8% 3	0% 0	0% 0	3% 1
5. e. The Implementation Guide was useful.	36% 14	46% 18	18% 7	0% 0	0% 0	0% 0	0% 0
6. f. The Student Guides were well received by the students.	33% 13	49% 19	13% 5	3% 1	3% 1	0% 0	0% 0
7. g. The Gather, Organize, Construct, and Share framework was useful in providing a framework for student projects.	33% 13	38% 15	18% 7	8% 3	0% 0	3% 1	0% 0
8. h. The TechYES CD was useful.	26% 10	38% 15	13% 5	10% 4	0% 0	0% 0	13% 5
9. i. The TechYES website provided valuable resources for TechYES Advisor.	33% 13	38% 15	21% 8	5% 2	0% 0	0% 0	3% 1
10. j. The TechYES website provided valuable resources for students.	31% 12	44% 17	18% 7	8% 3	0% 0	0% 0	0% 0

10. Please rate the extent to which you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A
1. a. The Peer Mentors were essential to TechYES success.	38% 15	33% 13	21% 8	8% 3	0% 0	0% 0	0% 0
2. b. Middle school students are mature enough to be successful Peer Mentors.	38% 15	31% 12	18% 7	13% 5	0% 0	0% 0	0% 0
3. c. The TechYES project evaluation process was an effective way to review student work.	23% 9	44% 17	33% 13	0% 0	0% 0	0% 0	0% 0
4. d. "The Check" online discussion resource was helpful to the Peer Mentors.	18% 7	28% 11	33% 13	15% 6	3% 1	0% 0	3% 1
5. e. Having all 7th grade students technology literate is important in my school/district.	46% 18	33% 13	15% 6	5% 2	0% 0	0% 0	0% 0
6. f. Having all 7th grade students receive their national TechYES certificates is important to my school/district.	28% 11	33% 13	31% 12	8% 3	0% 0	0% 0	0% 0
7. g. Obtaining TechYES Certificates was an easy process.	28% 11	36% 14	15% 6	8% 3	0% 0	0% 0	13% 5
8. h. TechYES is an effective strategy for "bridging the digital divide."	38% 15	36% 14	23% 9	3% 1	0% 0	0% 0	0% 0
9. i. By doing TechYES projects, students learned more about core curriculum subjects.	26% 10	33% 13	31% 12	8% 3	0% 0	0% 0	3% 1
10. j. The TechYES program improved the school-wide use of technology.	31% 12	36% 14	23% 9	5% 2	5% 2	0% 0	0% 0
11. k. Generation Y staff provided sufficient TechYES support.	46% 18	36% 14	18% 7	0% 0	0% 0	0% 0	0% 0

11. TechYES Projects were completed in the following subject areas:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 None	2 A Few	3 Some	4 Most	5 All
1. a. Social Studies	28% 11	18% 7	23% 9	18% 7	13% 5
2. b. Science	36% 14	28% 11	26% 10	8% 3	3% 1
3. c. Mathematics	82% 32	13% 5	5% 2	0% 0	0% 0
4. d. Language Arts	38% 15	13% 5	44% 17	3% 1	3% 1
5. e. Foreign Language	90% 35	5% 2	3% 1	0% 0	3% 1
6. f. Art	69% 27	21% 8	8% 3	0% 0	3% 1
7. g. Music	67% 26	28% 11	0% 0	3% 1	3% 1
8. h. Physical Ed/Health	69% 27	18% 7	8% 3	3% 1	3% 1
9. i. Computer Science	49% 19	23% 9	10% 4	13% 5	5% 2
10. j. ESL or ELL	82% 32	13% 5	0% 0	3% 1	3% 1
11. k. Special Education	85% 33	8% 3	5% 2	0% 0	3% 1

12. TechYES Projects were completed in the following emphases:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 None	2 A Few	3 Some	4 Most	5 All
1. a. Cultural Awareness	56% 22	21% 8	15% 6	5% 2	3% 1
2. b. Non-English Projects	77% 30	15% 6	5% 2	3% 1	0% 0
3. c. Community-Based	44% 17	26% 10	26% 10	5% 2	0% 0
4. d. Teaching/learning core curriculum	28% 11	31% 12	13% 5	15% 6	13% 5
5. e. Helping Faculty/Staff	56% 22	33% 13	8% 3	0% 0	3% 1
6. f. Involved Parents	51% 20	36% 14	8% 3	0% 0	5% 2
7. g. Individual Project	28% 11	15% 6	13% 5	33% 13	10% 4
8. h. Student Designed	15% 6	13% 5	23% 9	23% 9	26% 10
9. i. Teacher Designed	46% 18	15% 6	23% 9	10% 4	5% 2

13. On a scale of 1 (not at all) to 4 (expert) please rate the TechYES STUDENTS' ability to use knowledge/skills in the following areas BEFORE and AFTER their TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Know it well	4 Expert
1. 1a. Software Applications (before)	15% 6	69% 27	13% 5	3% 1
2. 1b. Software Applications (after)	3% 1	10% 4	82% 32	5% 2
3. 2a. Hardware (before)	15% 6	59% 23	23% 9	3% 1
4. 2b. Hardware (after)	5% 2	28% 11	54% 21	13% 5
5. 3a. Network Use (before)	26% 10	59% 23	13% 5	3% 1
6. 3b. Network Use (after)	8% 3	23% 9	51% 20	18% 7
7. 4a. Internet Safety and Nettiquete (before)	23% 9	54% 21	21% 8	3% 1
8. 4b. Internet Safety and Nettiquete (after)	3% 1	13% 5	72% 28	13% 5
9. 5a. Evaluating Web Resources (before)	28% 11	56% 22	13% 5	3% 1
10. 5b. Evaluating Web Resources (after)	5% 2	21% 8	64% 25	10% 4

14. Please rate the TechYES STUDENTS' levels in the following areas BEFORE and AFTER their TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Know it well	4 Expert
1. 1a. Academic Skills (before)	3% 1	59% 23	36% 14	3% 1
2. 1b. Academic Skills (after)	0% 0	21% 8	74% 29	5% 2

15. On a scale of 1 (not at all) to 4 (expert) please rate the TechYES PEER MENTORS' ability to use knowledge/skills in the following areas BEFORE and AFTER their TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Know it well	4 Expert
1. 1a. Technology Skills (before)	8% 3	64% 25	26% 10	3% 1
2. 1b. Technology Skills (after)	3% 1	8% 3	72% 28	18% 7
3. 2a. Tutoring Skills (before)	13% 5	72% 28	15% 6	0% 0
4. 2b. Tutoring Skills (after)	3% 1	18% 7	59% 23	21% 8
5. 3a. Project/Student Evaluation Skills (before)	28% 11	64% 25	8% 3	0% 0
6. 3b. Project/Student Evaluation Skills (after)	3% 1	23% 9	62% 24	13% 5
7. 4a. Leadership Skills (before)	10% 4	72% 28	18% 7	0% 0
8. 4b. Leadership Skills (after)	5% 2	15% 6	64% 25	15% 6

16. Please rate the TechYES PEER MENTORS' levels in the following areas AFTER their TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Less	2 Same	3 A little more	4 A lot more
1. 1. Academic Skills	0% 0	33% 13	51% 20	15% 6
2. 2. Interpersonal Skills	0% 0	15% 6	41% 16	44% 17
3. 3. Self Esteem	0% 0	15% 6	44% 17	41% 16

17. On a scale of 1 (not at all) to 4 (able to teach others), please rate your own knowledge/skills in the following areas BEFORE and AFTER the TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Confidently/Most	4 Able to teach others
1. 1a. Ability to teach technology (before)	3% 1	36% 14	21% 8	41% 16
2. 1b. Ability to teach technology (after)	0% 0	5% 2	36% 14	59% 23
3. 2a. Technology Skills (before)	5% 2	21% 8	28% 11	46% 18
4. 2b. Technology Skills (after)	0% 0	5% 2	31% 12	64% 25
5. 3a. Use of Project Based Learning (before)	8% 3	28% 11	46% 18	18% 7
6. 3b. Use of Project Based Learning (after)	0% 0	8% 3	36% 14	56% 22
7. 4a. Collaborating with Students (before)	3% 1	31% 12	44% 17	23% 9
8. 4b. Collaborating with Students (after)	0% 0	5% 2	38% 15	56% 22
9. 5a. Authentic Assessment (before)	5% 2	38% 15	38% 15	18% 7
10. 5b. Authentic Assessment (after)	0% 0	10% 4	41% 16	49% 19

20. Was the TechYES program supported by your administration?

		Number of Responses	Response Ratio
Yes		32	91%
No		3	9%
	Total	35	100%

VIEW 32 Responses

21. Did teachers allow students to use TechYES projects as class assignments?

		Number of Responses	Response Ratio
Yes		34	94%
No		2	6%
	Total	36	100%

VIEW 32 Responses

22. The TechYES program had the following meeting format(s) (check as many as apply):

		Number of Responses	Response Ratio
Regularly scheduled after-school club		5	13%
Regularly scheduled Lunchtime club		6	15%
After school (drop in)		14	36%
During school (drop in)		14	36%
As part of a regularly scheduled class		28	72%
VIEW Other, Please Specify		6	15%

TechYES Peer Mentor Survey
May – June 2006

Woodside Research Consortium collected this data under the direction of Dr. Steven A. Schneider.

TechYES Peer Mentors responding to this survey were primarily 8th grade students participating in the 2006 Verizon California Technology Literacy Project. Peer Mentors were prepared and then provided technical assistance and assessment services to TechYES students as they completed two projects showing they are technology proficient.

By December 2006, approximately 10,000 TechYES students will complete two projects showing they meet TechYES and the ISTE NETS standards. As of June 30, 2006, 1,498 students had completed their projects and received certificates. The remaining TechYES students are scheduled to complete TechYES certification by December.

Survey Results

5. Should your school continue TechYES next year?		Number of Responses	Response Ratio
Yes		33	79%
No		3	7%
Not Sure		6	14%
	Total	42	100%

7. What school do you attend?		Number of Responses	Response Ratio
Ahwahnee Middle School		0	0%
Alpha Technology Middle School		0	0%
Boron Jr./Sr. High School		2	5%
Brock Elliott Elementary School		0	0%
Burrel Union Elementary School		0	0%
Christa McAuliffe Middle School		0	0%
Coalinga Middle School		5	12%
Coarsegold Elementary School		3	7%
Colony Oak Elementary School		0	0%
Creekside Middle School		2	5%
Delta Island Elementary School		0	0%
Dunlap Elementary School		1	2%
Edison Computech		0	0%
Edison Middle School		0	0%
El Capitan Middle School		0	0%
El Monte Jr. High School		0	0%
El Tejon School		0	0%
Foothill Farms Junior High School		6	14%
General Shafter Elementary School		0	0%
Haven Drive Middle School		0	0%
Henderson Community Day School		0	0%
Island Elementary School		0	0%
Jack G. Desmond Middle School		5	12%
James Monroe Middle School		0	0%
Jonas Salk Middle School		7	17%
Kastner Intermediate School		3	7%
Keyes Charter School		0	0%
Knights Ferry Elementary School		0	0%
Lake Don Pedro Elementary School		1	2%
Lakeside Elementary School		0	0%
Lee Middle School		1	2%
Liberty Middle School		0	0%
Lincoln Junior High School		0	0%
Livingston Middle School		1	2%
Raymond-Knowles Elem. School		0	0%
Reef Sunset Middle School		3	7%
Richland Junior High School		0	0%
Sherman Thomas Charter		0	0%
Sonora Elementary School		1	2%
Summerville Elementary		0	0%
Teel Middle School		0	0%
Thomas Jefferson Middle School		1	2%
Washington Intermediate School		0	0%
Wawona Middle School		0	0%
Williams (Earle E.) Middle School		0	0%
Total		42	100%

8. Please rate how much you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A
1. a. TechYES is a good way to ensure middle school students are technology literate.	36% 15	38% 16	17% 7	7% 3	2% 1	0% 0	0% 0
2. b. There was enough time for the students to complete their two projects.	7% 3	21% 9	31% 13	17% 7	10% 4	7% 3	7% 3
3. c. The TechYES training was adequate for the Peer Mentors.	31% 13	38% 16	21% 9	2% 1	2% 1	2% 1	2% 1
4. d. The Student Guides were well received by the students.	43% 18	33% 14	7% 3	10% 4	2% 1	2% 1	2% 1
5. e. The Gather, Organize, Construct, and Share framework was useful when you reviewed student work.	33% 14	24% 10	21% 9	5% 2	0% 0	7% 3	10% 4
6. f. The Videos on the TechYES CD were useful.	12% 5	12% 5	12% 5	17% 7	2% 1	0% 0	45% 19
7. g. The TechYES website provided valuable resources for Peer Mentors.	36% 15	29% 12	14% 6	14% 6	2% 1	0% 0	5% 2
8. h. The TechYES website provided valuable resources for students.	21% 9	24% 10	14% 6	19% 8	0% 0	7% 3	14% 6
9. i. The Peer Mentors are essential to TechYES success.	50% 21	33% 14	5% 2	7% 3	2% 1	0% 0	2% 1
10. j. Middle school students are mature enough to be successful Peer Mentors.	43% 18	29% 12	12% 5	12% 5	0% 0	5% 2	0% 0

9. Please rate how much you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A
1. a. The TechYES evaluation process helped me determine if students were technology literate.	26% 11	38% 16	14% 6	5% 2	0% 0	7% 3	10% 4
2. b. "The Check" online discussion resource was helpful to the Peer Mentors.	38% 16	29% 12	14% 6	5% 2	0% 0	7% 3	7% 3
3. c. Having all 7th grade students technology literate is important in my school/district.	33% 14	38% 16	14% 6	7% 3	5% 2	0% 0	2% 1
4. d. Having all 7th grade students receive their national TechYES certificates is important to my school/district.	21% 9	33% 14	21% 9	14% 6	0% 0	5% 2	5% 2
5. e. The teachers at my school thought TechYES projects were useful.	31% 13	31% 13	14% 6	12% 5	5% 2	2% 1	5% 2
6. f. Generation Y (especially Adam) staff provided sufficient TechYES support.	40% 17	33% 14	7% 3	7% 3	0% 0	7% 3	5% 2
7. g. I like being a Peer Mentor.	55% 23	26% 11	12% 5	2% 1	0% 0	5% 2	0% 0
8. h. Being a Peer Mentor helped me with my schoolwork.	19% 8	21% 9	21% 9	5% 2	12% 5	12% 5	10% 4
9. i. The students I worked with learned more about school subjects as a result of their TechYES projects.	31% 13	19% 8	19% 8	10% 4	2% 1	5% 2	14% 6

10. How often did you meet to mentor students?		Number of Responses	Response Ratio
More than once a week		18	43%
Once a week		14	33%
Twice a month		1	2%
Once a month		1	2%
Less than once a month		4	10%
Never		4	10%
Total		42	100%

11. TechYES Projects that you mentored or evaluated were completed in the following subject areas:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 None	2 A Few	3 Some	4 Most	5 All
1. a. Social Studies	45% 19	24% 10	2% 1	14% 6	14% 6
2. b. Science	64% 27	14% 6	7% 3	7% 3	7% 3
3. c. Mathematics	76% 32	10% 4	7% 3	5% 2	2% 1
4. d. Language Arts	62% 26	14% 6	10% 4	7% 3	7% 3
5. e. Foreign Language	83% 35	10% 4	2% 1	2% 1	2% 1
6. f. Art	64% 27	19% 8	7% 3	5% 2	5% 2
7. g. Music	62% 26	14% 6	7% 3	12% 5	5% 2
8. h. Physical Ed/Health	76% 32	5% 2	5% 2	10% 4	5% 2
9. i. Computer Science	67% 28	14% 6	5% 2	7% 3	7% 3
10. j. ESL or ELL	81% 34	5% 2	7% 3	2% 1	5% 2
11. k. Special Education	83% 35	2% 1	10% 4	0% 0	5% 2

12. The TechYES Projects that you mentored or evaluated were completed in the following emphases:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 None	2 A Few	3 Some	4 Most	5 All
1. a. Cultural Awareness	60% 25	19% 8	17% 7	0% 0	5% 2
2. b. Non-English Projects	74% 31	17% 7	5% 2	2% 1	2% 1
3. c. Community-Based	64% 27	24% 10	5% 2	2% 1	5% 2
4. d. Teaching/learning core curriculum	69% 29	14% 6	10% 4	0% 0	7% 3
5. e. Helping Faculty/Staff	76% 32	12% 5	7% 3	2% 1	2% 1
6. f. Involved Parents	71% 30	17% 7	5% 2	2% 1	5% 2
7. g. Individual Project	33% 14	21% 9	14% 6	10% 4	21% 9
8. h. Student Designed	36% 15	17% 7	14% 6	10% 4	24% 10
9. i. Teacher Designed	62% 26	19% 8	7% 3	5% 2	7% 3

13. Please rate your ability as a PEER MENTOR to use knowledge/skills in the following areas BEFORE and AFTER your TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Most	4 Expert
1. 1a. Technology Skills (before)	7% 3	29% 12	48% 20	17% 7
2. 1b. Technology Skills (after)	7% 3	7% 3	45% 19	40% 17
3. 2a. Tutoring Skills (before)	14% 6	38% 16	33% 14	14% 6
4. 2b. Tutoring Skills (after)	2% 1	14% 6	48% 20	36% 15
5. 3a. Project/Student Evaluation Skills (before)	19% 8	48% 20	24% 10	10% 4
6. 3b. Project/Student Evaluation Skills (after)	7% 3	14% 6	48% 20	31% 13
7. 4a. Leadership Skills (before)	17% 7	14% 6	40% 17	29% 12
8. 4b. Leadership Skills (after)	10% 4	10% 4	24% 10	57% 24

14. Please rate your level as a PEER MENTOR in the following areas AFTER your TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Less	2 Same	3 A little more	4 A lot more
1. 1. Academic Skills	2% 1	48% 20	33% 14	17% 7
2. 2. Interpersonal Skills	2% 1	36% 15	33% 14	29% 12
3. 3. Self Esteem	7% 3	29% 12	36% 15	29% 12

15. Please rate the ADULT TechYES ADVISORS' ability to use knowledge/skills in the following areas before and after their TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Not at all	2 Minimally/A little	3 Confidently/Most	4 Able to teach others
1. 1a. Ability to teach technology (before)	5% 2	24% 10	40% 17	31% 13
2. 1b. Ability to teach technology (after)	2% 1	12% 5	31% 13	55% 23
3. 2a. Technology Skills (before)	5% 2	12% 5	36% 15	48% 20
4. 2b. Technology Skills (after)	2% 1	2% 1	21% 9	74% 31
5. 3a. Use of Project Based Learning (before)	2% 1	31% 13	29% 12	38% 16
6. 3b. Use of Project Based Learning (after)	0% 0	12% 5	40% 17	48% 20
7. 4a. Collaborating with Students (before)	5% 2	29% 12	31% 13	36% 15
8. 4b. Collaborating with Students (after)	5% 2	5% 2	31% 13	60% 25
9. 5a. Authentic Assessment (before)	5% 2	24% 10	38% 16	33% 14
10. 5b. Authentic Assessment (after)	0% 0	14% 6	36% 15	50% 21

18. Did being a Peer Mentor help you do better in school?

		Number of Responses	Response Ratio
Yes		20	51%
No		19	49%
	Total	39	100%

TechYES Student Survey
May – June 2006

Woodside Research Consortium collected this data under the direction of Dr. Steven A. Schneider.

TechYES students in this survey were 7th graders participating in the 2006 Verizon California Technology Literacy Project. These students were required to complete two projects following criteria defined in their TechYES Student Guides. The students were assisted in their projects by Peer Mentors and an adult advisor.

By December of 2006, approximately 10,000 TechYES students will complete two projects showing they meet TechYES and the ISTE NETS standards. As of June 30, 1,498 students had completed their projects and received certificates. All TechYES students in this project are scheduled to complete TechYES certification by December.

Survey Results

1. Did you finish two TechYES Projects?		Number of Responses	Response Ratio
Yes		443	67%
No		215	33%
	Total	658	100%

2. If not, do you plan on finishing your projects?		Number of Responses	Response Ratio
Yes		505	77%
No		153	23%
	Total	658	100%

3. Did you receive your certificate?		Number of Responses	Response Ratio
Yes		145	22%
No		513	78%
	Total	658	100%

4. What school do you attend?		Number of Responses	Response Ratio
Ahwahnee Middle School		2	0%
Alpha Technology Middle School		0	0%
Boron Jr./Sr. High School		67	10%
Brock Elliott Elementary School		47	7%
Burrel Union Elementary School		1	0%
Christa McAuliffe Middle School		0	0%
Coalinga Middle School		136	21%
Coarsegold Elementary School		49	7%
Colony Oak Elementary School		0	0%
Creekside Middle School		77	12%
Delta Island Elementary School		0	0%
Dunlap Elementary School		0	0%
Edison Computech		0	0%
Edison Middle School		1	0%
El Capitan Middle School		42	6%
El Monte Jr. High School		0	0%
El Tejon School		0	0%
Foothill Farms Junior High School		1	0%
General Shafter Elementary School		0	0%
Haven Drive Middle School		2	0%
Henderson Community Day School		0	0%
Island Elementary School		19	3%
Jack G. Desmond Middle School		10	2%
James Monroe Middle School		2	0%
Jonas Salk Middle School		0	0%
Kastner Intermediate School		0	0%
Keyes Charter School		0	0%
Knights Ferry Elementary School		0	0%
Lake Don Pedro Elementary School		20	3%
Lakeside Elementary School		2	0%
Lee Middle School		81	12%
Liberty Middle School		1	0%
Lincoln Junior High School		0	0%
Livingston Middle School		1	0%
Raymond-Knowles Elem. School		0	0%
Reef Sunset Middle School		47	7%
Richland Junior High School		1	0%
Sherman Thomas Charter		0	0%
Sonora Elementary School		15	2%
Summerville Elementary		0	0%
Teel Middle School		0	0%
Thomas Jefferson Middle School		33	5%
Washington Intermediate School		0	0%
Wawona Middle School		0	0%
Williams (Earle E.) Middle School		1	0%
Total		658	100%

5. Please rate the extent to which you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A (Not Applicable)
1. a. TechYES is a good way to help middle school students become Technology Literate	24% 156	37% 241	24% 156	7% 45	3% 20	4% 28	1% 4
2. b. There was enough time for me to complete my two projects	26% 171	27% 174	18% 116	10% 67	9% 57	8% 49	2% 16
3. c. The Student Guide was easy to read and understand	22% 142	33% 215	24% 154	7% 47	6% 37	6% 37	3% 18
4. d. The Gather, Organize, Construct, and Share framework was useful in helping me develop my project	18% 117	28% 179	26% 170	11% 70	7% 48	6% 37	4% 29
5. e. How I was to go about developing my project was very clear.	23% 152	33% 214	25% 162	9% 58	4% 29	4% 23	2% 12
6. f. The TechYES website provided useful resources	22% 143	25% 162	19% 123	11% 71	9% 60	9% 57	5% 34
7. g. The Peer Mentors helped me successfully complete my projects.	20% 133	22% 142	18% 117	10% 63	10% 62	15% 97	6% 36
8. h. Middle school students are mature enough to be successful Peer Mentors	31% 204	27% 174	20% 133	8% 51	5% 30	7% 46	2% 12

6. Please rate the extent to which you agree or disagree with the following statements:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Agree	2 Agree	3 Somewhat Agree	4 Somewhat Disagree	5 Disagree	6 Strongly Disagree	N/A (Not Applicable)
1. a. I would like to be a Peer Mentor in the future	22% 141	15% 96	23% 145	9% 56	10% 63	17% 106	4% 26
2. b. I liked being evaluated by a Peer Mentor	12% 77	23% 148	24% 154	14% 87	9% 59	10% 62	7% 46
3. c. I received good advice and assistance when I went to a Peer Mentor	17% 109	24% 153	21% 132	8% 48	9% 56	12% 74	10% 61
4. d. Having all 7th grade students technology literate is important in my school/district.	28% 179	28% 179	24% 155	8% 51	4% 24	4% 26	3% 19
5. e. Having all 7th grade students receive their national TechYES certificates is important to my school/district.	27% 171	31% 199	19% 122	9% 59	4% 26	6% 36	3% 20
6. f. Obtaining TechYES Certificates was an easy process	23% 146	25% 160	24% 153	7% 47	5% 32	6% 40	9% 55
7. g. Working on my TechYES projects helped me with other classes.	15% 94	17% 106	20% 128	15% 97	12% 75	17% 106	4% 27
8. h. Obtaining TechYES Certificates was a challenge.	16% 100	18% 117	21% 135	12% 79	9% 56	13% 80	10% 66

7. My two TechYES Projects were completed in the following subject areas:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	2 Both	1 One	None
1. a. Social Studies	6% 35	27% 167	67% 410
2. b. Science	9% 56	16% 99	75% 457
3. c. Mathematics	4% 22	10% 64	86% 526
4. d. Language Arts	12% 74	15% 93	73% 445
5. e. Foreign Language	2% 13	5% 32	93% 567
6. f. Art	10% 60	13% 79	77% 473
7. g. Music	7% 41	13% 82	80% 489
8. h. Physical Ed/Health	6% 37	15% 89	79% 486
9. i. Computer Science	17% 103	18% 110	65% 399
10. j. ESL or ELL	2% 14	5% 28	93% 570
11. k. Special Education	4% 27	8% 52	87% 533

8. My two TechYES Projects were completed in the following emphases:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	2 Both	1 One	None
1. a. Cultural Awareness	5% 28	16% 94	80% 476
2. b. Non-English Projects	5% 27	10% 57	86% 514
3. c. Community-Based	6% 33	16% 98	78% 467
4. d. Teaching/learning core curriculum	12% 71	19% 113	69% 414
5. e. Helping Faculty/Staff	6% 38	12% 71	82% 489
6. f. Involved Parents	6% 37	10% 61	84% 500
7. g. Individual Project	26% 155	30% 181	44% 262

9. Please rate your ability to use knowledge/skills in the following areas before and after your TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Don't know it at all	2 Know it a little	3 Know it well	4 I am an expert
1. 1a. Software Applications (before)	19% 110	48% 279	23% 134	9% 53
2. 1b. Software Applications (after)	11% 62	27% 155	46% 267	16% 92
3. 2a. Hardware (before)	22% 125	44% 253	26% 149	9% 49
4. 2b. Hardware (after)	14% 81	26% 149	44% 251	16% 95
5. 3a. Network Use (before)	14% 83	33% 190	33% 190	20% 113
6. 3b. Network Use (after)	10% 56	20% 114	42% 241	29% 165
7. 4a. Internet Safety and Nettiquete (before)	17% 100	30% 175	31% 176	22% 125
8. 4b. Internet Safety and Nettiquete (after)	10% 60	17% 99	38% 220	34% 197
9. 5a. Evaluating Web Resources (before)	19% 109	39% 224	27% 157	15% 86
10. 5b. Evaluating Web Resources (after)	12% 67	23% 131	41% 236	25% 142

10. Please rate your level in the following areas AFTER your TechYES experience.

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Less	2 Same	3 A little more	4 A lot more
1. 1. Academic Skills	5% 31	38% 221	40% 232	16% 92
2. 2. Interpersonal Skills	6% 32	37% 215	37% 212	20% 117
3. 3. Self Esteem	7% 39	39% 223	32% 186	22% 128

11. What did you learn or get better at by doing your TechYES projects?

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Just learned doing project	2 Knew it before but improved prior knowledge/skill	3 Knew it before	4 Didn't use
1. I know how to get to my folder on the "your school" Server.	20% 109	23% 124	30% 162	26% 137
2. I can manage an electronic portfolio of my work (save, organize, and turn in my assignments using the "your school" Server).	16% 84	34% 179	31% 167	19% 102
3. I know how to select a specific networked printer by location, color, or quality of copy.	16% 83	28% 149	37% 195	20% 105
4. I can create graphs from a spreadsheet.	15% 80	25% 135	28% 150	31% 167
5. I know how to use Graphic Converter software to change file formats of graphics (jpeg, pict, gif).	18% 95	23% 124	31% 166	28% 147
6. I can use Adobe Photoshop and/or Illustrator to create my own graphics or edit pictures.	17% 91	25% 135	31% 164	27% 142
7. I can use a scanner to import and edit graphics and text.	14% 73	25% 135	30% 157	31% 167
8. I can use a digital camera to take, import and edit pictures.	14% 77	26% 137	37% 195	23% 123
9. I can use HyperStudio software to create an electronic report.	14% 77	23% 122	23% 122	40% 211
10. I can use PowerPoint software to create an electronic report.	19% 102	29% 152	38% 201	14% 77
11. I know how to edit video and make a movie.	17% 93	24% 127	26% 140	32% 172
12. I know how to create a podcast.	15% 78	20% 107	20% 105	45% 242
13. I know how to use the "your school" e-mail program to send and receive e-mail.	14% 73	23% 123	27% 144	36% 192
14. I understand the rules of electronic communications (netiquette, emoticons, etc.)	17% 91	27% 141	34% 182	22% 118
15. I can attach documents and graphics to en e-mail message.	13% 68	24% 126	35% 185	29% 153
16. I can make an e-mail address book with lists or groups.	14% 72	25% 131	35% 186	27% 143
17. I know how to organize my e-mail account (delete messages, make organizing folders, etc.)	15% 79	22% 119	40% 215	22% 119
18. I can create a web page using Claris Home Page or Microsoft Front Page.	14% 77	21% 111	25% 132	40% 212
19. I can create a web page using HTML.	14% 77	22% 117	26% 136	38% 202
20. I can create a blog.	15% 79	22% 117	27% 145	36% 191
21. I can browse the World Wide Web using Netscape or Internet Explorer.	12% 64	27% 145	45% 240	16% 83
22. I can use search engines (e.g., Yahoo, Google, Metacrawler) to find specific information on the Internet.	13% 71	27% 143	47% 252	12% 66
23. I know how to tell if a specific search engine's individual site listings are useful for a topic of interest.	14% 72	30% 160	35% 185	22% 115
24. When using a search engine, I can choose accurate search words that lead me to the information I am trying to find.	14% 77	28% 147	38% 204	20% 104
25. I know electronic copyright and citation rules (fair use and giving credit to the author).	16% 87	29% 153	31% 166	24% 126
26. I know how to avoid spam and viruses.	15% 79	25% 133	37% 199	23% 121
27. I know how to make a presentation using the Interactive Whiteboard.	15% 78	21% 112	27% 145	37% 197
28. I know how to make effective oral presentations using technology.	15% 82	29% 155	32% 171	23% 124
29. I am comfortable making multimedia presentations to a class.	17% 92	26% 139	34% 181	23% 120