

Fullerton School District  
Laptops for Learning  
Program Evaluation,  
Year 2: 2005-2006



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## **Introduction**

The Laptops for Learning program in Fullerton School District is a one-to-one initiative that was launched for the 2004-2005 school year in three district schools (Nicolas Junior High School, Robert C. Fisler K-8 School, and Hermosa Drive Elementary School). More than 1,000 students from grades 1-8 were provided Apple iBook computers as part of this pilot one-to-one computing initiative. At the commencement of the 2005- 2006 academic year, the Laptops for Learning program was extended to include approximately 2,000 students and 85 teachers from four schools (Nicolas Junior High School, Robert C. Fisler K-8 School, Hermosa Drive Elementary School, and Golden Hill Elementary School).

Participants in the program included: all 7<sup>th</sup> and 8<sup>th</sup> grade students and teachers at Nicolas Junior High School; all 2<sup>nd</sup> through 8<sup>th</sup> grade students and teachers and nine (9) first grade students in a 1-2 combination class at Robert C. Fisler K-8 School; two classes of gifted and talented students, a 5<sup>th</sup> and 6<sup>th</sup> grade combination class, and all 6<sup>th</sup> grade students and teachers at Hermosa Drive Elementary School; and all 6<sup>th</sup> grade students at Golden Hill Elementary School. This report presents evidence of the use of and opinions of laptops for teaching and learning in these four Fullerton School District schools. Specifically, this report presents evidence of how teachers and students used the laptops for the 2005-2006 school year as well as insight into the attitudes and beliefs of those involved with this one-to-one computing initiative.

This is a preliminary report of the year two evaluation conducted by Dr. Loretta Donovan, an independent evaluator. This report draws from student, teacher, and parent surveys. The full report of the Fullerton School District Laptops for Learning initiative will also include data from classroom observations, student and teacher interviews, as well as district supplied school records.

## **Background**

The Laptops for Learning initiative of Fullerton School District was in its second year during the 2005-2006 academic year. In 2004, students and teachers at three district schools received Apple iBook computers. In addition to laptop computers, schools were prepared for digital teaching and learning in that classrooms and schools were equipped with wireless Internet access, associated hardware (including but not limited to projectors, printers, and scanners), and educational software and online teaching and learning resources. Additionally, a well-planned professional development program was implemented to prepare teachers for 21<sup>st</sup> century teaching. It should also be noted that one school, Robert C. Fislser K-8 School was opened for the 2004-2005 school year as a school with a focus on science and technology and equipping the school as a ‘high tech’ school was part of the design process. For the 2005-2006 school year the Laptops for Learning program expanded to include one more school site that was prepared for digital teaching and learning in the same way the pilot schools were. Training of teachers by school district personnel as well as external trainers representing Apple Computing Inc. occurs on a continual basis. Technical support is offered by Fullerton School District.

## **Preliminary Findings**

The findings discussed in this preliminary report are based on student, teacher, and parent surveys. Student and teacher surveys were conducted using an online survey tool (<http://www.Zoomerang.com>) and were completed during school hours. Parent surveys were distributed and collected by school district personnel and were in paper format. Parent surveys were available in English, Spanish, and Korean. The preliminary findings will be presented by reporting (a) Student uses and opinions, (b) Teacher uses and opinions, and (c) Parent opinions.

### **Student Uses and Opinions**

As a group, students participating in the Laptops for Learning program are using the laptops both in and out of school for a variety of purposes. Predominant uses during school hours are for writing (planning, drafting, editing), presentations, Internet research, and accessing educational software such as BrainPOP (animated Science, Social Studies and English movies and activities - <http://www.brainpop.com/>) and MyAccess! (writing and grammar software - <http://www.gomyaccess.com> ). Students work both individually and in small groups on projects and presentations. In addition, students are using the laptops for learning across the curriculum with students reporting using laptops in Language Arts and Social Studies, and to a lesser extent Science, Health, and Math.

Consistent with year one evaluation data, a large percentage (over 80%) of students reported feeling that having a laptop helps them to stay organized, and it is evident that the laptop is the learning tool of choice. Students reported that learning with laptops makes schoolwork more interesting and that they are more engaged with the content when laptop use is integral to the learning experience. This is important to note

as many students today feel a disconnect from academics and school, and teachers nationwide are working harder to motivate students to work to the best of their ability. Over 75 % of students reported that they feel the quality of their schoolwork has improved since the introduction of the laptop. When compared to year one evaluation data, this can be considered an upward trend as in the year one evaluation, only 47% of students attributed improved work quality to laptop use.

Students feel technical competence as well. When asked what they do best on their laptop, students reported being successful at keyboarding and making presentations, skills that will prove beneficial for continued education and functioning in a digital society. The majority of students self-evaluated their computer skill level to be intermediate, advanced, or expert, with only 2 (two) % of respondents rating themselves as beginners. When asked what they disliked about the Laptops for Learning program, student responses centered on technical difficulties such as computers freezing or programs taking time to load, as well as physical barriers such as having to carry the laptops to and from school.

Finally, in the home students are using the laptops for both school related and personal uses. Less than 25% of students reported either not having or not knowing if they have Internet access in the home, yet over 65 % of students reported using the laptops on a regular basis for Internet surfing on at least a weekly basis while at home. Other home uses for personal goals include listening to music, playing games or puzzles, and using the laptop for email or instant messenger. School related uses of the laptops in the home included writing and editing work, creating presentations, and using educational software such as ComicLife and NoteTaker.

## Teacher Uses and Opinions

Teacher respondents ranged in their teaching experience from novice teachers to teachers with over 20 years experience and represented all grade levels from 1<sup>st</sup> through 8<sup>th</sup>. Like the students, teachers feel comfortable with the laptops and are using them for a variety of instructional and non-instructional uses. Teachers reported using the laptops on a daily basis for professional or managerial use such as looking up information, communicating with colleagues, and preparing teaching materials or presentations. Other non-instructional uses that occur on at least a weekly basis include monitoring student progress and assessing student work. Teachers are interested in ongoing training specifically in the area of troubleshooting and solving technical problems. This seems very feasible in light of the student comments about technical difficulties.

Teachers reported that the use of laptops has been an overall positive influence on their teaching, with specific benefits including greater implementation of integrated or cross-curricular learning experiences for students, more facilitation of learning, and enhanced self-efficacy as a teaching professional. In addition, over 85% of teachers feel that they are better able to individualize instruction to better meet the needs of all learners when integrating the use of laptops into the teaching and learning experience.

With regard to student learning, teachers reported designing and implementing laptop-based learning experiences for students with increasing frequency with over 90% of teachers reporting greater variety of uses during year two of the Laptops for Learning program than for year one. Teachers reported that they consider the use of laptops for teaching and learning to have positive impact on student learning for all learning groups -

English Language Learners, Special Education Students, Gifted Students, At-risk Students, and general students with no special needs: Over 80% of teacher respondents reported positive or very positive impact. More specifically, a majority of teachers agreed or strongly agreed that student work quality is better when students are using the laptops for learning, students take more initiative in their approach to schoolwork ( a very valuable life-skill), and that students are more involved with research.

## Parent Opinions

Parents' opinions as a whole echo those of students and teachers in that they feel the Laptops for Learning program is benefiting students. More specifically, many parents agreed that they feel their child/children are more organized, do more in depth study, and demonstrate proficiency at using a computer. The majority of parents agree that the cost of the laptop was worth it, and over 80% of parents expressed interest in sending their child to a middle or high school that has a laptop program or allows students to bring laptops to class. On the other hand, parents shared comments that expressed concern about introducing students to laptops in elementary and middle school and then 'taking them away' when the student goes to high school. Specifically, parent comments centered around a dependence on using the laptop as a learning tool and not being familiar with traditional learning materials such as dictionaries and non-electronic research materials.

Parents expressed interest in attending training sessions on laptop applications that students are using for academic purposes. Additionally, the majority of parents agreed that they would like to communicate electronically with the teacher when questions arise, which may be stemming from a sense of disconnect from the program: A

large number of parents agreed to some extent that they would like to be more informed of how the child is using the laptop for learning.

Parents expressed concerns that extend beyond the academic uses of the laptops by children. Specifically, concerns centered around laptops being used to play games or surf the Internet when students should be completing homework.

## **Conclusion**

This report presents preliminary analysis of parent, teacher, and student surveys for the second year of Fullerton School District's Laptops for Learning program. Students and teachers as a group reported positive impacts of involvement in the program. Parents see many benefits to the program with the majority of them feeling it was a worthy investment. Parents expressed concerns about the program, many of which could be addressed by the school district through information sessions and keeping parents better informed of the intricacies of using laptops for teaching and learning.

The final report of the year two evaluation of the Laptops for Learning program will be more conclusive in that it will draw from survey data, school records, interviews, and classroom observations.

### **About the Evaluator**

Dr. Loretta Donovan is an assistant professor in the Department of Elementary and Bilingual Education at California State University, Fullerton. Dr. Donovan focuses her research in the area of effective uses of technology in the K-12 environment, and has conducted evaluations of one-to-one computing programs in Nevada.

Dr. Donovan was assisted in this project by Dr. Mark Warschauer, Associate Professor of Education and Informatics at University of California, Irvine and Mr. Douglas Grimes, doctoral candidate at University of California, Irvine, both of whom were involved in the year one evaluation.