

Preliminary Evaluation Report Fullerton School District Laptop Program

Prepared by
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Summary

The Fullerton School District in Orange County, California has launched a pilot one-to-one laptop learning program at three schools in the 2004-2005 school year. Based on preliminary data, the program appears to be contributing positively to student learning and is meeting the satisfaction of both teachers and students. The program deserves to be extended for another year while a fuller evaluation of the initiative can be carried out.

Introduction

Laptop learning programs are increasing at a rapid rate across the United States, as school districts seek ways to make better use of new technologies to enhance student learning. The Fullerton School District launched one of the largest pilot laptop programs in California in the 2004-2005 school year. As part of this program, more than 1000 students at three district schools were provided with laptop computers. Participants in the program included all the 7th-grade students at Nicolas Junior High School (554 students), all the 3rd-7th grade students at Fisler K-8 School (395 students), and two classes of Gifted & Talented Education (GATE) students at Hermosa Drive Elementary School (63 students). The laptop program has been financed by a combination of federal and parental funds. The program has included not only provision of Apple iBook computers to students and their teachers, but also provision of appropriate educational software, the establishment of wireless Internet access at the three schools, a substantial level of technical support to keep the equipment going, and a professional development program to help ensure that teachers are best prepared to make use of the laptops.

A team from the Department of Education at the University of California, Irvine, under the leadership of Dr. Mark Warschauer, has been invited by the district to evaluate the laptop learning program. A full evaluation of the first year implementation will be available in fall 2005. This report constitutes a preliminary mid-year evaluation of the first year implementation.

Much of the data that will contribute to the full report—including a survey of students and teachers, a review of attendance and test score data, and many scheduled observations and interviews—are not yet available for this preliminary evaluation. This evaluation is based solely on the following sources of data: 80 hours of classroom observations at the three schools, and interviews with 3 principals, 13 teachers or staff, and 10 students. The findings discussed in this preliminary report are thus tentative and are offered at this time strictly for advising the district as to continuation of the program for a second year. The full report in fall will provide a more detailed evaluation of the first year of the program.

Initial Findings

1. The laptops are being used widely at the three schools. Use of the laptops varies from classroom to classroom, but all the classes that we have observed are making use of the laptops and integrating them into instruction. From our observations, the laptops

are being used in ways that are consistent with what is known about effective use of educational technology as well as sound learning principles.

2. Some of the main benefits of the laptop program appear to be the following:
 - a. More regular access to diverse sources of information. One of the main uses of the laptops by students is to find and analyze information using tools such as NetTrekker or specially designed Web-quests.
 - b. Individualized instruction. Computer-based tools and resources are being used to provide individualized instruction and allow students to better move forward at their own pace.
 - c. Focus on writing. Laptop use has afforded students greater opportunities and motivation to write, to revise their writing, to collaborate with others in writing, and to have their writing assessed and evaluated.
 - d. In-depth learning. The laptop and online resources have provided students with a wide variety of tools for analyzing, interpreting, and communicating. Teachers have used these tools to allow students take multiple or novel approaches toward understanding topics and explore them in more depth.
 - e. Engagement through multimedia. Access to and production of multimedia has been used to deepen students understanding of concepts while also gaining new communication and presentation skills.
 - f. Study habits. Students are using laptops to better organize their work, to take notes for classes, and to maintain calendars of upcoming assignments. Reflecting what we observed and heard, one student termed the laptop “a portable study guide.”
3. The program appears to be meeting the needs of diverse students. GATE teachers have commented on how technology allows their students to better engage in complex projects involving research, analysis, and student production of knowledge. Special Education teachers have commented how the use of multimedia and the opportunities for more individualized instruction have provided important new opportunities to engage their students in learning challenging content.
4. There appears to be broad satisfaction with the program among teachers and students. Some teachers indicate a level of challenge as they seek to best implement a multifaceted new technology. But almost all the teachers we spoke with, including those who were initially skeptical, have indicated support for the laptop program and a desire to continue it. As for students, we have observed a high degree of enthusiasm for the program and this has been confirmed by the students we have interviewed.

5. Though every major technological innovation has bumps along the way, implementation of the laptop program appears to be going well. Discipline and logistical problems have occurred, but thus far appear to be well managed by the schools and district.

Conclusion

As the school year has not yet ended, and we do not yet have test score or survey results, the data that we have gathered and analyzed for this mid-year report are incomplete. Nevertheless, based upon our preliminary evaluation of 80 hours of classroom observations and 26 interviews with principals, teachers, and students, we recommend without reservation that the program be continued at the three sites for a second year and that it be expanded to the 8th grade at Nicolas and Fisler Schools and into the regular program at Hermosa Drive. A fuller evaluation of the first year's impact will be completed in fall 2005.

About the Evaluators

Dr. Mark Warschauer is Associate Professor of Education and Informatics at the University of California, Irvine, and the Associate Director of UCI's Ada Byron Research Center for Diversity in Computing & Information Technology. Dr. Warschauer is the author or editor of seven books on technology in education. Dr. Warschauer is assisted in this evaluation project by the following people:

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