

Palos Verdes Peninsula Unified School District Technology Action Plans

Action Plan #1: Student Learning Supported by Data Driven Decision Making

Problem Statement:

Student experiences with technology are inconsistent, optional, and do not reflect optimal uses of technology resources, and there is no coordinated, district-wide focus for technology use. Currently, some students use computers on a daily, almost hourly, basis while other students use computers only during computer electives or regularly scheduled visits to the computer lab, usually for less than an hour per week. Individual teachers determine how and when they will use technology with their students. In addition, individual schools determine priorities for technology use and practices in the teaching and learning process. Each school determines the placement of existing and new equipment on campus. These decisions are usually based on past practices at the school, or the preferences of the site administrator(s) or local “experts.” These decisions may not reflect the requirements of expanding transforming uses of technology or exemplary instructional practices.

Goal(s) Referenced:

- Establish technology use as essential for learning outcomes for all students.
- Institute the practice that teacher teams, working together, define essential learnings, assessment strategies, and expected results for student use of technology.
- Allocate existing equipment within each site based on exemplary instructional practices.
- Develop district guidelines for equitable deployment of equipment, regular equipment replacement, and purchase of portable devices to increase mobility and distribution of technology resources.

Action Plan:

Task	Timeline	Staff Responsible
Conduct teacher surveys which measure the levels of satisfaction for accessibility, reliability, frequency of use by students, etc.	Completed by June 30, 2002	Principals, Director of Technology
Select teachers, representing a range of technology proficiencies and prior experience with development of the essential learnings, to participate in summer technology planning activities	Completed by June 30, 2002	Principals, Director of Technology, Assistant Superintendent Educational Services
Conduct assessment of where technology is installed	Completed by June 30, 2002	Principals, Director of Technology, Superintendent
Conduct assessment of how and to what extent the existing technology is used, and what instructional benefit the technology achieves as a result of current deployment	Completed by June 30, 2002	Principals, Director of Technology, Superintendent
Publish periodic updates reporting progress on each aspect of this action plan	Ongoing beginning June 30, 2002	Director of Technology
Coordinate schedule of technology and curriculum planning activities to ensure integration between the initiatives	Completed by August 31, 2002	Principals, Director of Technology, Assistant Superintendent Educational Services
Define expectations of student experiences for all levels of technology use: literacy uses for basic technology skills, adapting uses for basic instructional needs, and transforming uses for development and dissemination of new knowledge	Completed by August 31, 2002	Principals, Teacher Leaders, Director of Technology, Assistant Superintendent Educational Services
Conduct open forums with teachers and administrators from several schools to discuss and determine the best models for deployment of technology based on the	Completed by August 31, 2002	Principals, Director of Technology, Assistant Superintendent Educational Services, Superintendent

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data collected within the district		
Compare existing technology skills matrix to national educational technology standards for students	Completed by August 31, 2002	Teacher Leaders
Revise and simplify the technology skills matrix to include only the essential skills by grade level	Completed by August 31, 2002	Teacher Leaders
Assess the pros and cons for each deployment option based on student learning benefits	Completed by August 31, 2002	Principals, Director of Technology, Assistant Superintendent Educational Services, Superintendent
Correlate curriculum essential learnings to appropriate applications of technology	Completed by August 31, 2002	Teacher Leaders
Publish a mapping document which clearly states the correlation between essential learnings and optimal uses of technology	Completed by August 31, 2002	Director of Technology, Assistant Superintendent Educational Services
Define ideal deployment patterns which may vary by grade level for specific student learning objectives	Completed by September 30, 2002	Principals, Director of Technology, Assistant Superintendent Educational Services, Superintendent
Distribute skills matrix to teachers and provide orientation session at each school to clarify role of matrix	Completed by September 30, 2002	Principals, Director of Technology
Develop demonstration lessons for adapting and transforming uses of technology based on established equipment deployment models	Completed by March 31, 2003	Principals, Teacher Leaders, Teachers, Director of Technology
Disseminate demonstration lessons to teachers	Completed by June 30, 2003	Principals, Teacher Leaders

Policy Issue:

Through the use of grants, donations, or prioritization of local resources inequities in access to technology have developed between schools. Should the Board of Education ensure equitable access to appropriate technology for all students where and when it is needed for enhanced student learning results even though per school costs will vary?

Fiscal Impact:

Planning activities are the major costs associated with this action plan. Teachers who participate in the planning aspects of this action plan will be paid the contracted rate of \$30 per hour. Estimated costs for 20 hours of planning activities by 15 teachers is \$10,000. Additional fiscal impact to achieve equitable access to appropriate technology for all students is reflected in the staff development and technology policy action plans.

Action Plan #2: Student Learning Supported by Comprehensive Staff Development

Problem Statement:

Due to the voluntary nature of staff development, systemic change is not fully realized. Teachers attend a wide variety of professional development activities. However, there is no district policy of accountability to apply the skills and concepts of the professional development to classroom practices. Technology staff development does not focus on student learning outcomes nor is it correlated to the essential learnings. Since only some teachers voluntarily elect to change classroom practices, students do not experience consistent learning experiences from school to school, grade to grade, and even classroom to classroom. In addition, teachers possess a wide range of technology proficiencies. Teachers need to view technology options as tools to facilitate instructional practices, classroom management, and student assessment reporting.

Goal(s) Referenced:

- Sustain teacher involvement with and commitment to ideas and implementation of practices and skills

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through staff development incentive programs.

- Establish technology use as essential for learning outcomes for all students.

Action Plan: (Addresses teacher technology proficiencies, classroom management issues, ongoing staff development tied to information literacy, ongoing support and follow through following staff development, and incentive programs tied to applying new techniques)

Task	Timeline	Staff Responsible
Conduct baseline self-assessment of teachers' technology proficiencies	Completed by June 30, 2002	Principals, Teacher Leaders. Site-based Technology Support Staff
Establish minimum technology tool proficiencies (electronic gradebooks, email, analysis tools, Internet searching skills, etc.) for all teachers	Completed by July 31, 2002	Teachers, Principals, Director of Technology
Identify staff development resources which provide tutorial lessons for attaining personal technology skills	Completed by August 31, 2002	Teacher Leaders, Director of Technology
Locate or develop, and provide personal technology proficiency measurements for teachers	Completed by August 31, 2002	Teacher Leaders, Director of Technology
Identify and develop staff development materials and resources for effective classroom management skills related to technology use	Completed by August 31, 2002	Principals, Teacher Leaders, Director of Technology
Provide ongoing series of staff development institutes for specific grade levels and content areas which are scheduled over several weeks and include theoretical and practical aspects of instructional technology focused on the information literacy standards defined within the English Language Arts content standards.	Ongoing beginning September, 2002	Principals, Teacher Leaders, Director of Technology, Consultants
Provide ongoing coaching and feedback support as teachers design technology-based classroom activities focused on information literacy for students	Ongoing beginning September, 2002	Teacher Leaders, Teachers
Define timeline for each teacher to apply concepts from institutes to classroom instruction	Ongoing beginning August, 2002	Principals, Teacher Leaders, Teachers
Investigate incentive options in lieu of hourly stipends for teachers who participate in, apply new concepts to the classroom practices, and mentor and coach colleagues	Completed by November 30, 2002	Principals, Teacher Leaders, Superintendent, Assistant Superintendent Educational Services, Director of Technology
Schedule exchange visits among classroom teachers to observe one another utilizing technology focused on information literacy with students	Ongoing beginning January 2003	Principals, Teacher Leaders, Teachers

Policy Issue:

Should the District expect every teacher to participate in staff development activities and assess the extent to which each teacher applies the concepts from staff development to improve student learning, or should participation and application of concepts be voluntary?

Fiscal Impact:

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Staff development stipends (contracted rate of \$30 per hour) for participants who attend or present after school or summer staff development sessions are the major costs related to this goal. Recent average costs for technology staff development is \$25,000 to \$35,000 annually. Digital High School funds for technology staff development for Peninsula High and Rancho del Mar are \$50,000 for 2001-02 and 2002-03. The process defined by this action plan will involve a team of the teachers from each school to bring about a systemic change of classroom practices.

Minimum number of hours for staff development established at 40 hours per year per teacher, total cost is approximately \$1,200 per teacher for total annual cost of \$120,000 for 100 teachers (approximately 20% of the teaching staff).

- or -

One possible incentive program provides personal laptop computers for participants who commit to participation in, and application of, professional development activities and concepts in lieu of an hourly stipend. The potential cost for this options is \$1,500 per teacher for an annual cost of \$150,000 for 100 participants (approximately 20% of the teaching staff).

Action Plan #3: Student Learning Supported by Collaboration of Teams of Teachers

Problem Statement:

Teachers are usually isolated from one another as they plan for the use of technology in their classrooms. This isolation makes the implementation of improved instructional strategies or practices unlikely. Based on experiences of one group of teachers from a summer technology institute and the development of the essential standards by another group of teachers, bringing teachers together to work as teams yields much greater benefits than individual teachers tackling issues without collegial support. Teams of teachers can also impact more students and alleviate the wide range of student experiences with technology that now exist.

Goal(s) Referenced:

- Institute the practice that teacher teams, working together, define essential learnings, assessment strategies, and expected results for student use of technology.
- Sustain teacher involvement with and commitment to ideas and implementation of practices and skills through staff development incentive programs.

Action Plan: (Addresses optimal schedule for staff development, cadre of teacher leaders, opportunities for teams of teachers to collaborate, and dissemination of best practices)

Task	Timeline	Staff Responsible
Investigate alternate schedules to better accommodate staff development activities	Completed by November 30, 2002	Principals, Teachers, Assistant Superintendent of Educational Services
Identify and charge a cadre of teacher leaders from each site to meet monthly with district staff to address issues related to instructional technology, for example technology resources correlated to textbook adoption cycles, technology's contribution to the essential learnings, etc.	Ongoing beginning September 2002	Principals, Teacher Leaders, Director of Technology, Educational Services Personnel
Schedule monthly grade level or content area team meetings at each school and include technology as an item on each agenda	Ongoing beginning September 2002	Principals
Assemble examples of best practices for transforming uses of technology in the form of model lessons, videotapes of student activities, portfolios of student products, etc. for dissemination; examples are reviewed and discussed by teams of	Ongoing beginning January 2003	Principals, Teacher Leaders, Director of Technology

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teachers during monthly grade level or content area meetings		
Schedule staff development summer institutes for grade level or curriculum teams whereby the teams work together during the institute and serve as a collegial support group during implementation of institute concepts and practices.	Ongoing beginning June 2003	Principals, Teachers, Teacher Leaders, Director of Technology, Consultants
Publish on the district web page anecdotal examples of grade level or content area projects developed by teams following participation in staff development	Ongoing beginning August 2003	Principals, Director of Technology

Policy Issue:

Should the Board of Education support the current optional staff development policies, or pursue a non-optional model for staff development for teacher teams from each school designed to increase the impact on classroom practices and student learning results?

Fiscal Impact:

Staff development stipends (contracted rate of \$30 per hour) for participants who attend or present after school or summer staff development sessions are the major costs related to this goal. The process defined by this action plan will involve a team of the teachers from each school to bring about a systemic change of classroom practices.

Estimated annual costs based on a group of 100 (approximately 20% of teaching staff) teachers are \$30,000 for every 10 hours of staff development.

Action Plan #4: Student Learning Supported by Evaluation of Student Technology Products

Problem Statement:

Currently many teachers lack the skills and tools to evaluate student technology-based products. Although teachers design student assignments which include the use of technology, the nature of those assignments does not take advantage of the unique advantages that technology tools can provide. Many of these assignments do not achieve transforming uses of technology but only replicate or adapt traditional student work.

Goal(s) Referenced:

- Evaluate, through collaborative teams of teachers, the nature and quality of student technology-based products using existing scoring guides.

Action Plan: (Addresses use of scoring guides and staff development on evaluation of student technology projects)

Task	Timeline	Staff Responsible
Investigate existing options for scoring guides for technology-based assignments and student products	Completed by November 30, 2002	Representative Teachers and Principals, Director of Technology, Coordinator of Curriculum
Adopt the use of specific scoring guides for technology-based assignments and student products	Completed by January 31, 2003	Assistant Supt. Educational Services
Provide leadership training and trainer of trainers workshops for teachers at each site who will serve as trainers and mentors for colleagues	Completed by March 31, 2003	Principals, Director of Technology, Coordinator of Curriculum
Define schedule of workshops at each site to ensure participation by all teachers	Completed by April 30, 2003	Principals, Teacher Leaders

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Provide staff development in the use of the scoring guides for all teachers from each site	Completed by July 31, 2003	Teacher Leaders and Principals
Conduct sessions where groups of teachers practice scoring sample products to calibrate teachers use of the scoring guides	Completed by August 31, 2003	Teacher Leaders and Principals

Policy Issue:

Should the Board of Education expect high quality products and assignments that reflect transforming uses of technology for all students, or accept the practice of primarily using technology resources at literacy or adapting levels?

Fiscal Impact:

Hourly stipends (contracted rate of \$30 per hour) for representatives from each school who attend after school or summer trainer of trainer staff development sessions are the major costs related to this goal.

Estimated annual costs based on a group of 100 teachers are \$15,000 for every 5 hours of staff development.

Action Plan #5 Technology Policy: Technology Support Personnel

Problem Statement:

The time lapse between equipment failure and repair has increased. It now takes up to two weeks at the elementary level, one week at the intermediate, and two to three days at the high school for a broken piece of equipment to be repaired. Enrollment growth and the opening of the second high school will exacerbate this problem by increasing the delay to up to three weeks at elementary schools, up to two weeks at intermediate schools, and up to five days at the high schools.

Goal(s) Referenced:

- Establish technology use as essential for learning outcomes for all students.

Action Plan:

Task	Timeline	Staff Responsible
Redefine the role of part-time, site based technology aides related to minor equipment repair and preventive maintenance	Completed by June 30, 2002	Principals, Technology Support Staff, Director of Technology, Assistant Supt. Human Resources
Establish equipment and software standards for new purchases and donations, and procedure for adhering to standards	Completed by June 30, 2002	Representative Teachers and Principals, Technology Support Staff, Director of Technology, Director of Purchasing
Reassign technology repair technicians based on geographic area until additional staff are hired	Completed by July 31, 2002	Director of Technology
Notify school sites of estimated increase in time lapse until additional staff are hired	Completed by July 31, 2002	Principals, Director of Technology
Define which equipment will not be supported by district and site technology support personnel due to obsolescence or failure to meet district standards	Completed by August 31, 2002	Technology Support Staff, Director of Technology, Director of Purchasing, Director of Maintenance
Redefine scope of repair tasks and responsibilities for district technology repair technicians	Completed by August 31, 2002	Technology Support Staff, Director of Technology
Investigate outsourcing technology	Completed	Director of Technology, Director of Purchasing,

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maintenance functions, specifically for printers and video equipment	by October 31, 2002	Director of Maintenance
Recruit, select, and train additional site based personnel in entry level technical support roles with hourly stipends	Ongoing beginning September 2002	Principals, Technology Support Staff, Kids Corner personnel, Student Tech Aides

Policy Issue:

Does the Board of Education wish to decrease, maintain or improve equipment repair response time?

Fiscal Impact:

If the Board of Education decides to maintain the existing response time one additional repair technician (estimated \$54,000 annual cost) needs to be employed prior to the 2002-03 academic year.

If the Board of Education decides to reduce response time to no more than three to five days between service calls then two additional repair technicians must be employed prior to the 2002-03 academic year (\$108,000 annual cost).

Action Plan #6 Technology Policy: Equipment Replacement Cycle and Computer Ratios

Problem Statement:

Many purchases of technology equipment for schools occur in large blocks made possible by infusions of funds from local gift, state or district sources. These funds are not available at all schools. There is disparity among schools with regard to quantity and quality (age and specifications) of equipment available for student and teacher use.

Goal(s) Referenced:

- Establish technology use as essential for learning outcomes for all students.
- Develop district guidelines for equitable deployment of equipment, regular equipment replacement, and purchase of portable devices to increase mobility and distribution of technology resources.

Action Plan:

Task	Timeline	Staff Responsible
Conduct inventory of all equipment at each school site	Completed by May 31, 2002	Site-based Technology Aides, Director of Purchasing
Determine basic equipment needs, student to equipment ratios, and minimum standards for each classroom, library media center and school at each level, elementary through high school	Completed by July 31, 2002	Teachers, Principals, Director of Technology, Assistant Supt. Educational Services
Develop purchase plan for sites that do not meet district base program or are below the target ratios with combination of site and district matching funds	Completed by November 30, 2002	Principals, Parents, Superintendent, Director of Technology, Director of Fiscal Services
Develop replacement plan for all sites that maintain equipment profile of no more than 20% of equipment being 5 years or older with combination of site and district matching funds	Completed by November 30, 2002	Principals, Parents, Superintendent, Director of Technology, Director of Fiscal Services

Policy Issue:

Should the Board of Education provide equitable student to computer ratios of up-to-date resources by replacing equipment on a regular basis, or accept limits on instructional options due to obsolete resources?

Fiscal Impact:

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The following estimate of one-time funds needed to bring all classrooms and shared spaces up to school-wide target ratio program is based on the Spring 2002 equipment inventory. Ongoing costs depend on annual student enrollment growth; 21 computers per 100 additional students equates to \$22,000 for each additional 100 students.

Level	Current Ratio	Target Ratio	2002 – 03 Need	2002-03 cost to reach target ratio
Elementary	5.0 : 1	4.75 : 1	46 computers	\$48,000
Intermediate	6.1 : 1	4.75 : 1	128 computers	\$135,000
High School	4.75 : 1	4.75 : 1	0	\$0

For example, the following estimate of funds needed to maintain base program of no more than 20% older than 5 years is based on the Spring 2002 equipment inventory. Costs for reaching the 20% target in subsequent years may vary depending on the number of items more than 5 years old. (Exhibit R summarizes computer age distribution data.)

Level	Percent over 5 years	Replacements to reach target	Estimated Replacement Cost
Elementary	33% of 975 computers	123 computers	\$129,000
Intermediate	34% of 461 computers	63 computers	\$66,000
High School	10% of 684 computers	None	\$0

Action Plan #7: Transforming School to Home Communications

Problem Statement:

No district wide expectations exist for electronic communications. Therefore, not all teachers and not all schools use electronic communication tools to full advantage. Nearly all student homes have a least one computer and a connection to the Internet. All classroom teachers and all administrators have district email accounts, most classrooms have access to the Internet, and all classrooms have telephones and voicemail. In addition, new approaches are needed to reduce the costs of paper, postage, and processing large-scale mailings.

Goal(s) Referenced:

- Utilize technology resources in student homes to transform the partnerships between schools and parents with timely, reliable, and interactive communications.

Action Plan:

Task	Timeline	Staff Responsible
Conduct a survey of technology that exists in student homes and determine levels of student access to technology tools such as email, Internet access, etc. at home	Completed by June 30, 2002	Principals, Teachers, Parents
Conduct a survey of parents on desired characteristics for school to home communication systems	Completed by June 30, 2002	Principals, Parents
Conduct parent education workshops on how parents can encourage appropriate at home use of technology to support classroom instruction	Completed by June 30, 2002	Principals, Teacher Leaders, Director of Technology
Configure and update all teacher computers for email function	Completed by September 15, 2002	Site Technology Aides
Update district email web page designed for internal use with links to all teachers by school, content area, and grade level	Completed by September 15, 2002	Director of Technology
Create web page with individual email links for each teacher for each school	Completed by September 15, 2002	Director of Technology

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Investigate commercial school to home communication systems or services that enhance timely communications to parents	Completed by August 31, 2002	Principals, Director of Technology, Assistant Supt Educational Services, Superintendent
Investigate commercial products which provide parents access to student attendance, assessment, and classroom information	Completed by August 31, 2002	Principals, Director of Technology, Assistant Supt Educational Services, Superintendent
Purchase or subscribe to commercial communication systems or services that best meets the needs of parents and school personnel	Completed by September 30, 2002	Director of Technology, Assistant Supt Educational Services, Superintendent, Board of Education
Provide staff development workshops for teachers and administrators on the use of the communication system or service	Completed by October 31, 2002	Principals, Teacher Leaders, Director of Technology, Vendors
Provide orientation workshops for parents on the use of the communication system or service	Completed by November 30, 2002	Director of Technology, Assistant Supt Educational Services, Superintendent, Board of Education, Vendors

Policy Issue:

Does the Board of Education wish to promote the use of technology for the improvement of school to home communications, or to maintain traditional forms of school to home communications?

Fiscal Impact:

Each commercial communication system or service must be licensed throughout the school district. Licensing fees vary depending on the comprehensiveness of the system or services. Some systems or services require specific equipment specifications which necessitate the purchase of new equipment, operating system or utility software, ongoing maintenance contracts, and training services for staff and parents. Approximate costs for services range from \$2,000 to \$50,000 annually.