Twin Rivers Unified School District Technology Plan

July 1, 2011 - June 30, 2014

Sacramento County

Purpose: EETT

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Background and Demographic Profile

Twin Rivers Unified School District (TwinRiversUSD) emerged from the consolidation of three pre-existing school districts: North Sacramento, Del Paso and Rio Linda Elementary School Districts and one pre-existing secondary school district: Grant Joint Unified High School District. Approved by voters in November of 2007 and taken effect on July 1, 2008, the district will enter is third "unified" school year this fall.

It is the mission and vision of TwinRiversUSD, "to inspire each student to extraordinary achievement every day" through an "an unwavering focus on powerful and engaging learning experiences that prepare students for college, career, and life success." As a means to achieve this, the district community is committed to the following:

- Offering a broad spectrum of programs with high expectations that support a wide variety of career paths.
- Valuing, respecting and engaging with diverse cultures.
- Creating family-friendly environments that foster mutual respect, trust, caring, and love.
- Engaging students, staff, families, and community with meaningful involvement in our schools and programs.

The district encompasses 120 square miles in northern Sacramento County. It is positioned in the center of a growing, ethnically and economically diverse region characterized by a mix of suburban development and light industry. The district's 3,300 staff members serve approximately 30,000 students in preschool through adult education. This education comes in a wide variety of deliveries and locations. The district is comprised of 58 school sites, including 33 comprehensive elementary schools, 6 comprehensive junior high schools, 4 comprehensive high schools, 6 charter schools, 2 adult education sites, 1 independent study high school, 2 continuation schools, 3 community day schools, and 1 special education school.

Such a large population requires an intense and complex infra-structure. About 26,000 meals are served every day, and the transportation system is compromised of 133 school buses and covers 117 routes for approximately 7,000 students.

The district is made up of some of the some of the oldest schools and poorest children in the region. It is diverse in economics, language, and culture, with nearly 60% ethnic minorities. 79% of students qualify for the free and reduced lunch program, and 11.1% of the students receive special education services.

Approximately 30% of the students are English Learners who speak 33 different languages. The top four languages are English, Spanish, Russian, and Hmong.

(Excerpt from Local Educational Agency Plan- CAA doc)

1. Plan Duration

July 1, 2011 - June 30, 2014

This revised Education Technology Plan encompasses the next three years, from July 1, 2011 – June 30, 2014. It is the result of many hours of discussion and collaboration among a diverse representation of administrators, teachers, parents, students, and business partners. Our Technology Oversite Committee (TOC) was formed in April, 2009 in order that a designated committee would oversee the implementation and review of our current Technology Plan. With this structure in place we have been reviewing the current 2008-2011 Education Technology Plan. We have assessed our achievements to date, discussed lessons learned, determined our new district vision for the next three-years, and developed strategies to get us there. In addition, the long-term goals of the National Educational Technology Plan have been used as the foundation of our goals which envision a 21st century teaching and learning environment grounded in the reality of our knowledge-based, Digital Age.

TwinRiversUSD will provide learning experiences in which technology furthers our learning community by:

- Utilizing technology as a tool, not an end in itself, as an integral part of the way we work, teach, and learn.
- Allowing students opportunity to use technology seamlessly, as an integral part of the learning process to enhance their critical thinking, problem solving skills, and communication skills.
- Empowering educators to use technology to create teachable moments and provide just-in-time learning interventions.
- Maximizing the use of technology to facilitate effective and efficient organizational operations and decision-making within the district.
- Cultivating interactive communication and activities among home, school, and community as a means to increase and improve student learning.

This plan is for e-rate purposes and will be evaluated annually

2. Stakeholders

Guided by a collaborative vision, our ongoing technology planning centers around how technology can help students meet grade level academic content standards and reach desired learning outcomes identified by our school district and its community. Our TwinRiversUSD Technology Oversite Committee (TOC) continually reviews the district's curriculum goals and current student achievement data and then determines how technology use can help students more effectively and efficiently reach their academic goals. The TOC is comprised of district, site and community representatives. They, as well as district curriculum, data, and information technology staff, site administrators, teachers, students, and parents are responsible for implementing and monitoring the plan.

The TOC meets at least eight times per year to:

- Evaluate the status of the current technology plan and make adjustments if needed.
- Monitor progress on current technology projects.
- Gather and evaluate district technology data with regard to hardware, wiring, resources, professional development, and projects.
- Collect and analyze survey and technology data.
- Identify and update common technology needs and issues.

In addition to these meetings, our district website and e-mail provides stakeholders with a mechanism for ongoing updates and input regarding the objectives, funding, budgets, and curricular guidelines contained within our technology plan.

The following list identifies the variety of stakeholders that participated in our district's tech planning process.

District Curriculum Personnel – District Instructional Leadership Team, Superintendent, Assistant Superintendent(s), Director of Assessment and Accountability, and Director of Categorical Programs.

...promote, direct, and facilitate the technology team's development of broad and inclusive goals and objectives for curriculum, resources, and operations that include technology. Our curriculum personnel integrate 21st century skills into the overall vision for student achievement and into every aspect of learning, teaching, and administrating. Curriculum personnel define and unpack clear and specific standards-aligned academic objectives by grade and subject; support research-based best practices and instructional programs; develop student assessment and data monitoring systems, monitor school performance, and make adjustments based on school performance.

District Technology Personnel – Instruction and Information Technology Team including: Executive Director, Informational Technology and Support Services, Informational Technology Managers, Director, Instructional Technology, and Coordinators, Instructional Technology.

...provide overall coordination of the technology implementation and oversight team, funding resources, and the implementation of the goals and objectives set forth in this updated technology plan.

District Financial Personnel – The Director Fiscal Services and Fiscal Services Staff

...provide coordination of technology funds and budget issues.

Site Administration – Site Principals

...provide site-based updates on tech plan implementation and needs; monitor teacher performance and student learning; make adjustments based on teacher and student performance; ensure the use of adopted

materials, research-based best practices and instructional programs; provide input on how technology can better support the teaching of standards-aligned academic objectives.

Site Teachers – Teacher Representatives (Elementary, Middle, High School, Alternative and Continuation Schools)
...provide input on efforts and outcomes using research-based technology programs and practices to support the district curricular goals and academic content standards and improve teaching and learning.

Parents/ Students – Parent Representatives (parents of students enrolled in our Elementary, Middle, High School, Alternative and Continuation Schools)

...provide input on the district and schools' efforts to integrate technology and 21st century skills in the standards-aligned curriculum. Parents and students advocate for equity in access to technology and the opportunity to master core subjects and 21st century skills.

Government Agencies– The California Technology Assistance Project (CTAP) Region 3.

...offer technical assistance with: the data analyses and revision of our goals and objectives; professional development planning and implementation; EETT Formula Funding; E-rate; K12 Vouchers; compliance issues; hardware, software, and infrastructure.

Community Groups & Businesses – Computers For Classrooms, Diverse Network Associates (DNA), our local recreation center, and local media.

...offer assistance with the implementation of our tech plan objectives focused on improving technology equity, access, after school opportunities, and home-school-community communications.

Oversite- Technology Oversite Committee (includes representation from those listed above)

...review a draft of our tech plan and offered input on research-based best practices in the adoption and integration of technology by teachers and students.

Our District continues to solicit, expand, and sustain our partnerships with stakeholders to enhance the integration of educational technology into the curriculum. Our district recognizes that schools alone do not have the resources or expertise to keep pace with rapidly changing technology. We believe that these partnerships will help us serve the growing needs of an increasingly technical and global education system and society.

3. Curriculum

3a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.

Each school site in the Twin Rivers Unified School District is connected by fiber with a minimum 100 mbps connection and each instructional classroom is connected to the network backbone with at least one network drop at a speed of 100 mbps. All teachers have at least one designated teacher computer. The number of computers available in the classroom for students to use varies from school to school, and classroom to classroom. The range runs from 0 to 14 stations with most classrooms having 2 – 4 computer stations open for students. Classroom computers are available throughout the school day and as well, many classrooms hold after school programs that allow students expanded-beyond-the-day access.

Additionally every school site has either a computer lab which holds an average of 34 PC stations or a library media center which typically has 4 – 6 desktop stations and a laptop cart which holds up to 40 laptops. Currently, computer labs and library media centers are open to students during school hours and some, but not all, depending on staffing, are open before and after school. Computer labs and library media centers are often used for teacher technology training and there are several schools that open their lab for parents to use programs such as Rosetta Stone, an English language development software program. Lack of student and community access after hours due to our inability to fund staffing continues to be an overall concern.

The district has established a list of standard software that is imaged on each computer that is purchased. All computers are installed with: Microsoft Office* which includes Word, Outlook, Excel, PowerPoint, Access, Publisher, InfoPath, and Communicator, Antivirus, Acrobat Reader, Adobe Flash Player, Adobe Shockwave, Altiris Client, QuickTime, CD Burner XP, Java – Free, Lo Jack (included in laptop purchase) and Big Fix. Access to purchased educational software varies greatly depending on school site goals. See Section 3b. for a summary of the educational software that is accessible.

LCD projectors are the second most widely distributed and accessed hardware device. Approximately 75% of the classrooms have access to an LCD projector. A majority of the projectors are ceiling mounted however newly purchased SMART Boards are being purchased with an integrated wall mounted, short-throw LCD.

Teachers have access to and integrate various other technology devices in their classrooms. After a thorough evaluation process, we have standardized our purchases of interactive white boards. We currently have 501 72” SMART boards installed on classroom walls that are being used daily. This accounts for 48% of the total number of classrooms in the district. Additionally there are approximately fifty SMART “slates” or portable wireless tablets that are used. A considerable but unknown number of Interwrite slate boards were purchased by one of the districts prior to the merging of the four districts however they were not widely adopted nor supported and thus are not being widely used. Student Response Systems are increasing in number almost every day. There are four elementary schools that have purchased them for every classroom and several other sites have purchased several sets that are shared amongst staff. Still a majority of sites (only 10 sets in secondary schools) currently do not have a set of student response systems for teachers to use with their students. Similarly, document cameras have been purchased by several schools for every teacher but a majority of schools do not have them for teachers to access.

To support our students who have special needs, much time and attention has been given to choosing appropriate and applicable technology solutions. For all secondary special education classrooms in order to access Transition Services students have access to student computers in their classrooms that hold the

following; Internet access, video cards, and sound cards with in the computers. The computers also need to have Pentium 4, Windows 98, ME 2000, XP, Vista or better. 128 MB RAM, 256 MB recommended, sound cards with speakers, 1024x768 display resolutions. For secondary special education moderate to severe classrooms in order access the curriculum materials they require the items above in addition to an LCD Projector or DVD player with TV, and 2-3 student computers with video and sound cards.

3b. Description of the district's current use of hardware and software to support teaching and learning.

Enrichment and remediation software is increasingly being used in the classroom across the district as teachers become more comfortable using computers on a personal and professional basis. Our focus on differentiation strategies to provide every child with the curriculum and support they need mandates the need to continually expand software applications that are aligned with the core curriculum and can be easily accessed and used. The following data offers a snapshot of the technology software being utilized by teachers.

In addition to the descriptions above, educators at all grade levels use many web 2.0 applications to support student learning. Wikis, blogs, and sites such as glogster, kidpub, kizoa and animoto are giving students an opportunity to apply their learning in free educational environments that build their knowledge and skills, and enhance digital literacies.

All teachers use the web-based portion of our Aeries student information system (SIS) for daily attendance. In addition, all secondary teachers use our content management system, School Loop, to manage grade books and report grades. All applicable teachers use our district-wide electronic learning assessment system, Measures, during administration of common district assessments. As well, all elementary teachers use Measures for completing student Report Cards.

We have a district wide licenses worldbookonline.com and learn360.com. Worldbookonline is widely used in classrooms and especially the library. It is also available for students and parents to use at home access allowing. Libraries utilize Destiny for managing books and students are taught the skills necessary to find appropriate reading materials. Additionally, computer labs and/or library media centers are available at every school site. They are fully utilized through out the day. Worldbookonline is available for all in the learning community since the district user name and password is distributed home. Learn360 is a video streaming product that supports the standards-based curriculum we provide. Searchable by grade level and content standard, teachers and students have access to thousands of videos, images and podcasts that engage students in alternative digital formats.

Below is a comprehensive list of the various software applications being used to support student learning. Teachers use this software to supplement and enrich their curriculum. Intervention programs being run both during, before and after school also use these programs to varying degrees. Software applications are loaded on classroom computers, libraries and computer labs where applicable.

SUBJECT AREA	APPLICATIONS		
Language Arts	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Clifford The Big Red Dog Phonics • Accelerated Reader • Fuzzbuzz - Level 1: Word Learning • I Love Phonics • Letters and Numbers • Reading Blaster • Top Reader • Tell A Tale • Kidspiration • Build A Book • Orchard K-3 - Reading • Reading Assistant (EL)	• Accelerated Reader • All the Right Type • Captain Zogs Main Idea • Kidspiration • Inspiration • Microsoft Office Suite • Reading Blaster • Top Reader • McDougal Littell Language of Literature Reading Assistant (EL 7-8)	• Adobe Suite • Microsoft Office Suite • AP English Language • AP English Literature • CAHSEE Test Prep • High Point Reading 9-12 • Inspiration • McDougal Littell Bridges to Lit Audio Library • Adobe Photoshop • Infotrac
Math	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Accelerated Math • Early Math • Math Blaster • ST Math • ST Math – Fluency • Orchard K-3 - Math • Sticky Bears Math Town	• ST Math • ST Math - Fluency • Math Blaster • Accelerated Math • Mighty Math • Math Blaster – Pre-algebra	• Graph Master • Introduction to DataStudio Interactive Tutorial • Numeracy Project CAHSEE standards
Social Studies	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Holt US History	• Holt US History • National Geographic (7-8)	• Holt US History • National Geographic • Prentice Hall American Government Student Express • Prentice Hall World History • US History Independence to 1914
Science	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Foresman Science	• Foresman Science	• AP Biology • Glencoe Biology • Glencoe Chemistry • Holt Life Science

Special Services (K-12)	• Earobics
	• Intellitools
	• Teach Me To Talk by Soft Touch
	• Switch Basics by Soft Touch
		• Edmark Software
		• Living Books by Broderbund
		• Board Maker
		• Co-Writer
		• Speak Q
			• Software by Inclusive Technologies
			  ○ Switch It
			  ○ Patterns
			  ○ Switch It Opposites

3c. Summary of the district's curricular goals that are supported by this tech plan.

TwinRiversUSD has established clear curricular goals tied to the academic content standards monitored by various district and site-based assessment systems, and referenced in comprehensive district planning documents and efforts. The common underpinning of all our district and school improvement plans is to improve student achievement of the state content standards.

Twin Rivers District Curricular Goals

In order to serve the diverse needs of district students, members of the district and district community review data to analyze student achievement patterns and draw conclusions used for planning interventions and improvement strategies. The following data sources provide essential information for understanding the reasons why our schools' achievement data looks the way it does and what actions are necessary to address identified needs: API and AYP reports, CAT-6, CAPA, CST, CELDT, CAHSEE, graduation/dropout rates, promotion/retention rates, report cards, survey results (including DAS, APS, ELLSA), district benchmark assessments, teacher/publisher tests, enrollment data, language classifications, levels of parent education, family language proficiencies, crime statistics, attendance/truancies/tardies, feeder school programs, categorical/designated/special programs, and teacher certification. This information provides the basis for needs assessments and planning. After reviewing data, the Curriculum and Academic Achievement (CAA) Division formulated five priority goals, which include:

Goal #1: By June 2011 TwinRiversUSD students' 10th grade California High School Exit Exam (CAHSEE) passage rates will be commensurate with county passage rates.

Goal #2: By June 2011 TwinRiversUSD student graduations rates will be commensurate with count rates using the count's calculation method, with A-G requirements met.

Goal #3: By June 2011 TwinRiversUSD will improve proficiency by annually meeting proficiency targets as measured by the CST. TwinRiversUSD will make significant progress toward eliminating existing achievement gaps pre-K – adult.

Goal #4: TwinRiversUSD will use data for proper\early identification of students who are struggling or need additional challenges.

Goal #5: TwinRiversUSD will improve options for students pre K-Adult, including alternative settings.

In the following district and site comprehensive planning documents, the aforementioned district goals and corresponding specific measurable objectives can be found.

- California academic content standards and frameworks.
- District curriculum guides aligned with CA academic content standards.
- District evaluation criteria for textbook adoption.
- The District's current Educational Technology Plan.
- District LEA Plan
- The district plan for English Learners (EL) describes the policies for identifying, assessing, and reporting students who have a primary language other than English. This EL Master Plan provides details on the reclassification procedure and the English Language Development and instructional programs to be provided to EL students to assist them in meeting and/or exceeding state academic content standards and graduation requirements.

- The Policy and Procedures handbooks for each program which details the philosophy and goals, and policy and procedures regarding students, instruction, promotion and retention, equity, administration, personnel, community relations, business, and much more.
- Site–based Single Plan for Student Achievement, SARC, WASC and CCR self-study reviews and actions plans.

TwinRiversUSD has decided to use the National Educational Technology Plan (NETP) goals in teaching, learning, assessment, and productivity, published on March 5, 2010 to shape our own. Our curricular driven technology plans include clear, specific, realistic goals and measurable objectives that will support our district's curriculum goals and student achievement of the state content standards.

It is our belief that technology plan goals which scaffold towards accomplishing the NETP provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals. All goals within 3d-3k are sub goals of the following district-wide visioning statement:

TwinRiversUSD strives to improve student achievement and close student achievement gaps through student acquisition of 21st Century Skills.

3d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.

The following goal is a sub-goal of TwinRiversUSD's over arching goal to, "improve student achievement and close student achievement gaps through student acquisition of 21st Century Skills". TwinRiversUSD has established this goal as a means to achieve the following NETP learning and teaching goals:

1.0 Learning: All learners will have engaging and empowering learning experiences both in and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.

3.0 Teaching: Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that enable and inspire more effective teaching for all learners.

In this section our goals, benchmarks, and implementation plan focus most specifically on supporting teachers needs in a way that enables and inspires them to effectively engage, and empower their students as mentioned in the NETP Learning 1.0 and Teaching 1.0 goals.

Applicable Digital Resources:

- Adopted Text Supplemental Tech resources including publisher software and websites.
- CLRN and district/site purchased curriculum software such as Learn 360, WorldBook Online, Renaissance Learning, ST Math etc.
- Microsoft Office and other productivity software.
- Internet Access and Resources
- California K-12 High Speed Network
- Peripherals such as LCD projectors, digital cameras, video cameras, and printers.
- Professional Development and Learning Communities
- Instructional Technology Department Website (http://edtech.twinriversusd.org)

Goal 3d.1: Goal 1.1: Teachers and students will increase their use of technology to improve and support the district's teaching and learning curriculum goals in the area of academic achievement.

Objective 3d.1.1: By June 2014, 75% of core subject teachers (English Language Arts, Math, Science, and Social Studies) K-12 will use technology tools to improve and support the district's teaching and learning curriculum goals in the area of academic achievement in lesson design and delivery a minimum of twice a week.

Benchmarks:

- Year 1: By June 2012, 55% of K-12 core subject teachers (English Language Arts, Math, Science, and Social Studies) will use technology tools to improve and support the district's teaching and learning curriculum goals in the area of academic achievement in lesson design and delivery a minimum of twice a week.
- Year 2: By June 2013, 65% of K-12 core subject teachers (English Language Arts, Math, Science, and Social Studies) will use technology tools to improve and support the district's teaching and learning curriculum goals in the area of academic achievement in lesson design and delivery a minimum of twice a week.
- Year 3: By June 2014, 75% of K-12 core subject teachers (English Language Arts, Math, Science, and Social Studies) will use technology tools to improve and support the district's teaching and learning curriculum goals in the area of academic achievement in lesson design and delivery a minimum of twice a week.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Technology Experts (TechEx) in each of the core subjects listed previously will be hired as teacher leaders who are dedicated to increasing the use and application of research-based teaching and learning strategies that integrate technology for our students, staff and community as well as increasing the use and application of identified 21st century learning skills.	Hired Annually: September, Monthly check-in & planning, professional development scheduled throughout the school year	Instructional Technology Department	The Instructional Technology Department will work with TechEx Teacher Leaders to develop subject area specific professional development modules.	TechEx Teacher Leaders track their hours and provide on-going reflection regarding effectiveness and site/district needs through monthly meeting notes, a log, and end of year survey.

Technology will become a regular part of site staff meetings. During collaboration focused staff meetings, teachers will share their best practices and discuss ways to integrate technology into upcoming lessons. Site administrators will include regular discussion of technology integration at their staff meetings.	Collaboration Meetings occur monthly, Whole site staff meetings occur monthly	Site Administrators, Site Department Chairs/Lead Teachers	Principal and Site Department Chairs/Lead Teachers will place appropriate items on agendas and facilitate discussion. Principals will keep a record of meeting agendas.	Meeting Agendas
Technology will become a regular part of Subject Area Meetings (SAM) and Subject Area Articulation Team (SAAT) meetings in which all school sites are represented.	SAAT= September, December, March, & May SAM= October, February, & April	TechEx Teacher Leaders, Subject Area Curriculum Coordinators	Subject Area Curriculum Coordinators will work with TechEx Teacher Leaders to place appropriate items on agendas, facilitate discussion, and inform site representatives on upcoming Professional Development opportunities. Agendas will be turned in to Curriculum & Instruction.	Meeting Agendas
Teachers and students will complete Project Tomorrow's, Speak Up Survey annually to monitor technology use in instruction, and progress towards 21st century skills development.	Annually - October through December.	Instructional Technology Department	Instructional Technology will monitor sites progress, supported by Site Administrators. Instructional Technology Department will collect the results. Technology Oversite Committee will review results to consider modifications to Tech Plan.	Project Tomorrow Speak Up Survey http://www.tomorrow.org/speakup/

Teachers use technology with students to create projects and/or enhance learning.	Bi-weekly	Instructional Technology Department, Teachers & Principals	Principals provide opportunities for professional development of lessons and rubrics with technology components. Teachers participate in collaboration time, deliver lessons and score student work.	Meeting agendas, Lesson Plans, Rubrics w/ technology components, & Student Work
Students use technology to create projects and extend/enhance their learning.	Bi-weekly	Teachers, Students, & Parents	Teachers assess student work. Students complete projects and participate in opportunities to extend/enhance their learning. Parents support, encourage, and monitor their students completion of work.	Teacher Lesson Plans, Scored Rubric with technology components, & Student Work

Goal 3d.2: Elementary teachers will increase the explicit integration and assessment of district adopted 21st Century Learning Skills (Self-direction, Collaboration, Social Skills, Higher order thinking, Information Communication Technology, Information Literacy, Cross-Cultural Literacy, and Creative Thinking.) to allow students to demonstrate proficiency in these areas.

Objective 3d.2.1: By June 2014, 75% of elementary students will be proficient in district-adopted 21st Century Skills as listed above.

Benchmarks:

- Year 1: By June 2012, 55% of elementary students will be proficient in district-adopted 21st Century Skills as listed above.
- Year 2: By June 2013, 65% of elementary students will be proficient in district-adopted 21st Century Skills as listed above.
- Year 3: By June 2014, 75% of elementary students will be proficient in district-adopted 21st Century Skills as listed above.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Professional Development Modules for each district-adopted 21st Century Skill will be developed which focus on integration and assessment of each skill.	Year 1: Self-Direction, Collaboration and Higher Order Thinking Skills Year 2: Information Literacy, Social Skills and Creative Thinking Year 3: Cultural Awareness and Information Communication Technology	Instructional Technology Department, & Library Media Services Department	Instructional Technology & Library Media Services Departments will facilitate the development of the modules.	Completed materials for each module including student progress monitoring rubrics for each skill
Elementary teachers will be trained on how to integrate and assess the district-adopted 21st Century Skills	Year 1: Self-Direction, Collaboration and Higher Order Thinking Skills Year 2: Information Literacy, Social Skills and Creative Thinking Year 3: Cultural Awareness and Information Communication Technology	Instructional Technology Department, Library Media Services Department, School Site Administrators	Library Media Services Department, Site Principals & Instructional Technology Department will track the scheduling of these modules to ensure all elementary sites receive training.	Training Calendars and Site level sign-in sheets

Elementary teachers will integrate and assess their students' ongoing progress in the district adopted 21st Century Skills.	By June of Year 1: Self Direction, Collaboration and Higher Order Thinking Skills By June of Year 2: Information Literacy, Social Skills and Creative Thinking By June of Year 3: Cultural Awareness and Information Communication Technology	Assistant Superintendent of Curriculum & Instruction, Site Administrators and Teachers	Teachers will use the rubrics provided within each skill's Professional Development Module to assess student progress towards proficiency on an ongoing basis. Teachers will indicate student proficiency level on the Elementary Report Card 21st Century Skills section. Assistant Superintendent, Curriculum and Instruction will verify that students receive marks on the Elementary School Report Card according to the adopted timeline.	Ongoing student Progress Rubrics from Modules and Elementary School Report Card Marks
Students will engage in activities, assignments, projects & research opportunities both formal an informal which allow them to demonstrate progress towards mastery in district adopted 21st Century Skills.	By June of Year 1: Self Direction, Collaboration and Higher Order Thinking Skills By June of Year 2: Information Literacy, Social Skills and Creative Thinking By June of Year 3: Cultural Awareness and Information Communication Technology	Site Teachers, Students, & Parents	Teachers will facilitate their students in the creation of "kid-friendly" grade level appropriate versions of the rubrics. Teachers will support students in monitoring their own progress in each skill through student-friendly versions of the rubrics as "opportunities" occur. Teachers will communicate regularly with parents regarding ways to support students in continued progress.	Student-Friendly Rubrics Samples, and Random sampling of student examples of self-assessment and work over time

Ongoing review of the 21st century professional development being developed and provided .	Ongoing	Instructional Technology Department, School Site Administrators.	Instructional Technology Department & Library Media Services Department will archive, review, and update, as necessary any changes in professional development.	Teacher Survey feedback
Professional development modules will be available throughout the year, as developed, as well as in future years for newly hired teachers and administrators.	Ongoing	Instructional Technology Department & Library Media Services Department	Instructional Technology Department & Library Media Services Department will provide a minimum of 3 annual professional development opportunities on previously rollout 21C skills throughout the year	Calendared professional development

Goal 3d.3: Secondary teachers will increase the integration of social-based learning, mobile learning and digitally rich curriculum via online access.

With the exponential growth of social based medium (facebook, myspace, Club Penguin, etc), smart phones, netbooks and available online curriculum, we believe our district goals will be more attainable as teachers successfully engage students in technologies that they use in their daily lives. Students in today's world need access to our educational resources 24/7 so that they can more effectively self manage, monitor and evaluate their work. By giving students a safe medium in which they can communicate, communication and collaboration skills become developed and by providing them with relevant technology tools that provide easy access, they are more prepared to enter the world beyond our school district. The explosion of Web 2.0 applications is mandating that we utilize a more engaging and interactive curriculum. Simulations and educational video games are increasingly becoming more available and preliminary research is supporting increased student achievement in each of these three areas.

Objective 3d.3.1: By June, 2014, 50% of secondary teachers will integrate at least one of the following technology based applications: social-based learning tools, mobile learning or digitally rich curriculum via online access.

Benchmarks:

- Year 1: By June 2012, 30% of secondary teachers will integrate at least one of the following technology based applications: social-based learning tools, mobile learning or digitally rich curriculum via online access.
- Year 2: By June 2013, 40% of secondary teachers will integrate at least one of the following technology based applications: social-based learning tools, mobile learning or digitally rich curriculum via online access.
- Year 3: By June 2014, 50% of secondary teachers will integrate at least one of the following technology based applications: social-based learning tools, mobile learning or digitally rich curriculum via online access.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Identify, recommend and evaluate network access needs and mobile devices.	Bi-annually completed in April and October	Assistant Superintendent, Curriculum and Instructional Technology Department	TOC will review Speak Up Survey results.	Project Tomorrow Speak Up Survey http://www.tomorrow.org/speakup
Identify, recommend and evaluate collaboration and communication tools for social learning.	Bi-annually completed in April and October	Assistant Superintendent, Curriculum and Instructional Technology Department	TOC will review Speak Up Survey results.	Project Tomorrow Speak Survey Up Survey http://www.tomorrow.org/speak up
Identify, recommend and evaluate digital media tools, resources, online textbooks, simulations and games for digitally rich curriculum enhancement.	Bi-annually completed in April and October	Assistant Superintendent, Curriculum and Instructional Technology Department	TOC will review Speak Up Survey results.	Project Tomorrow Speak Up Survey http://www.tomorrow.org/speakup
Develop and provide professional development to secondary teachers on social-base learning, mobile learning and interactive digitally rich curriculum.	Begin Initial Rollout: August of Year 1 Ongoing professional development will be provided.	Instructional Technology Department	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress.	Monthly Agendas, Sign in sheets, calendar of offerings

Develop and provide professional development via *online mediums* on social-base learning, mobile learning and interactive digitally rich curriculum	Begin Initial Rollout: January of Year 2. Continue to expand online learning opportunities through Year 3	Instructional Technology Department	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress.	Record of completed online courses
A minimum of ten teacher/student pilot programs will be rolled out whereby students are engaged in educationally relevant social learning mediums to reach identified instructional goals. Teachers will participate in professional development to learn about identified social-based learning and then apply that learning to develop and deliver technology integrated projects. Students in pilot programs will utilize identified social learning mediums to complete at least two grade level appropriate projects aligned with NETS Standard 3 & 6.	Fall, Year 1 Monthly Review	Instructional Technology Department & Identified principals and teachers	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress. Site principals will designate time for participating teachers to collaborate.	Student achievement indicators: attendance; work completion; grades; Completion and mastery of projects
Expand successful social learning pilots and ensure that all secondary sites have at least one social based learning pilot. Continue expansion.	Expansion in Fall, Year 2 All sites to have at least one successful program in Year 3	Instructional Technology Department	The Instructional Technology Department will present at Principal meetings and follow up with site meetings with principals and designated teachers. A district list of programs will be kept of identified programs per site.	Principal Agendas and district list of programs

A minimum of three teacher/student mobile learning pilot programs will be rolled out. Teachers will participate in professional development to learn about mobile learning then apply that learning to develop and deliver mobile learning technology integrated projects. Students in pilot programs will utilize the mobile devices to complete at least two grade level appropriate projects aligned with NETS Standard 3 & 6.	Fall, Year 1 Monthly Review	Instructional Technology Department & Identified principals and teachers	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress. Site principals will designate time for participating teachers to collaborate.	Student achievement indicators: attendance; work completion; grades; Completion and mastery of projects
Expand successful mobile pilots and ensure that all secondary sites have at least one mobile learning pilot. Continue expansion.	Expansion in Fall, Year 2 All sites to have at least one successful program in Year 3	Instructional Technology Department	The Instructional Technology Department will present at Principal meetings and follow up with site meetings with principals and designated teachers. A district list of programs will be kept of identified programs per site.	Principal Agendas and district list of programs

A minimum of ten teacher/student pilot programs will be rolled out. Teachers will participate in professional development to learn about identified simulations, games and/or online curriculum and then apply that understanding to develop and deliver technology integrated projects. Students in pilot programs will utilize the online curriculum, simulations and/or games to complete at least two grade level appropriate projects aligned with NETS Standard 3 & 6.	Fall, Year 1 Ongoing through Year 3	Instructional Technology Department & Identified principals and teachers	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress. Site principals will designate time for participating teachers to collaborate.	Student achievement indicators: attendance; work completion; grades; Completion and mastery of projects
Expand successful pilots and ensure that all secondary sites have access and use online digitally rich curriculum which may include online core content, simulations and/or games.	Expansion in Fall, Year 2 All sites to have at least one successful program in Year 3	Instructional Technology Department	The Instructional Technology Department will present at Principal meetings and follow up with site meetings with principals and designated teachers. A district list of programs will be kept of identified programs per site.	Principal Agendas and district list of programs

3e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.

The following goal is a sub-goal of TwinRiversUSD over arching vision to "Improve Student Achievement & Close Student Achievement Gaps through student acquisition of 21st Century Skills". TwinRiversUSD has established this goal as a means to achieve the following NETP learning goal:

1.0 Learning: All learners will have engaging and empowering learning experiences both in and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.

It is our belief that technology plan goals which scaffold towards accomplishing the National Education Technology Plan provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals. In this section our goals, benchmarks, and implementation plan focus most specifically on the "active", "creative", and "knowledgeable" aspects of the NETP Learning 1.0 goal.

Applicable Digital Resources:

- Adopted Text Supplemental Tech resources
- Microsoft Office and other productivity software.
- Applicable Internet Access and Resources and resources
- Instructional Technology Department Website (http://edtech.twinriversusd.org)

Goal 3e.1: Students will be proficient with grade level Research & Information Fluency and Technology Operations & Concepts skills (NETS Standard 3 & 6)

Objective 3e.1.1: By June 2014, 75 % of students will demonstrate proficiency in Research & Information Fluency and Technology Operations & Concepts skills (NETS Standard 3 & 6) through completion of at least two grade level appropriate assignment/projects a school year in which completion requires the student demonstrate mastery of these skills.

Benchmarks:

- Year 1: By June 2012, 55 % of students will demonstrate proficiency in Research & Information Fluency and Technology Operations & Concepts skills (NETS Standard 3 & 6) through completion of at least two grade level appropriate assignment/projects a school year in which completion requires the student demonstrate mastery of these skills.
- Year 2: By June 2013, 65 % of students will demonstrate proficiency in Research & Information Fluency and Technology Operations & Concepts skills (NETS Standard 3 & 6) through completion of at least two grade level appropriate assignment/projects a school year in which completion requires the student demonstrate mastery of these skills.
- Year 3: By June 2014, 75 % of students will demonstrate proficiency in Research & Information Fluency and Technology Operations & Concepts skills (NETS Standard 3 & 6) through completion of at least two grade level appropriate assignment/project a school year in which completion requires the student demonstrate mastery of these skills.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Create grade level appropriate rubrics or infuse terminology into existing rubrics that addresses Research and Information Fluency/Technology Operations and Concepts skills (NETS Standard 3and 6).	Year 1: Creation Year 2 & 3: Revisions	Library Media Teachers, Instructional Technology Department, District Subject Area Coordinators	Instructional Technology Department will coordinate rubric development collaboratively with Library Media Teachers Librarians.	Developed rubrics
Teachers and administrators will participate in the evaluation of student research reports, presentations, and work samples during the report process.	At least two grade level appropriate assignment/ projects per school year	Teachers, Library Media Teachers, Librarians and Administrators	Teachers, Library Media Teachers, Librarians and Administrators will evaluate student projects with 21st Century Rubrics.	Teachers and administrators will apply rubrics aligned with the district's 21st Century Skills (based on NETS Standards) to student research reports each semester.
Instructional Technology Department / Curriculum and Instruction Department will address teachers ongoing need for professional development focused on teaching the 21st Century Skills by providing onsite and district-wide training.	On going based on site/district needs	Instructional Technology Department, Curriculum and Instruction Department	The Instructional Technology Department will meet monthly with representatives from the Curriculum and Instruction Department to review progress.	Project Tomorrow Speak Up Survey http://www.tomorrow.org/speakup Site based 21st Century walk throughs
Assist teachers in implementing technology activities in their classroom through coaching, demonstration lessons, and modeling.	Ongoing	Library Media Teachers, Student Learning Coaches, Instruction Technology Department, and Site Administrators	The Instructional Technology Department will work with TechEx Teacher Leaders to develop subject area specific professional development modules. Review teachers proficiency and needs by informal walk throughs and evaluation of student work.	Report Cards, 21st Century Learning Rubrics, Project Tomorrow Speak Up Survey

Reports will be displayed at school/community events.	Back to School Night, Open House	Teachers, District and Site Administrators	Parent evaluations Teacher and Administrator feedback	Report Card, 21st Century Rubrics, Teacher expectations
Technology Experts (TechEx) will offer focused professional development which explore best practices for teaching NETS Standard 3&6 in both lesson design and delivery.	Monthly check-in and planning, trainings scheduled throughout the school year.	Instructional Technology Department	The Instructional Technology Department will work with TechEx Teacher Leaders to develop subject area specific professional development modules.	TechEx Teacher Leaders track their hours and provide on-going reflection regarding effectiveness and site/district needs through a logs and end of year survey.
During collaboration focused staff meetings site administrators will allow teachers share their best practices and discuss ways to integrate and scaffold the mastery of NETS Standards 3 & 6 into upcoming lessons.	Collaboration Meetings occur monthly	Site Administrators, Site Department Chairs/Lead Teachers	Principal and Site Department Chairs/Lead Teachers will place appropriate items on agendas and facilitate discussion. Principals will keep a record of meeting agendas.	Professional Feedback

3f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use

The following goal is a sub-goal of TwinRiversUSD over arching vision to "Improve Student Achievement & Close Student Achievement Gaps through student acquisition of 21st Century Skills". TwinRiversUSD has established this goal as a means to achieve the following NETP learning goal:

1.0 Learning: All learners will have engaging and empowering learning experiences both in and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.

It is our belief that technology plan goals which scaffold towards accomplishing the NETP provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals. In this section our goals, benchmarks, and implementation plan focus on the "ethical participants in our globally networked society" portion of the NETP Learning 1.0 goal.

Goal 3f.1: Students will increase their understanding regarding Intellectual Property which includes: distinguish lawful from unlawful uses of copyrighted works; fair use; plagiarism; file sharing; and academic integrity.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Using various resources, develop curricular units per grade level focusing on ethical use of information technology including the following topics: copyright and fair use, downloading and file sharing, and plagiarism. Each unit includes pre and post tests.	Year One: August-October	Assistant Superintendent Curriculum and Instruction; Coordinator, Library Services; Teacher Librarians	Technology Oversite Committee will review the developed units.	Completed Units
Provide training and information focusing on ethical use of information technology for teachers and administrators. Training to be provided to at least one site administrator and one designated site liaison.	Initial Roll-out Year 1: Oct-December Ongoing/Updated Trainings Year 2 &3: Sept-Oct Annually	Assistant Superintendent, Curriculum & Instruction; Coordinator, Library Services; Teacher Librarians	Technology Oversite Committee will receive updated bi-annual report on progress.	Ethical Use Survey/Evaluation Pre and Post Test. Sign in sheets for Staff Development
Teachers will deliver curricular units focusing on ethical use of information technology including the following topics: copyright and fair use, downloading and file sharing, and plagiarism. K-6 teachers will deliver in self contained classrooms. Secondary school sites will have several options presented for delivery.	Initial Rollout Year 1: March Year 2 & 3 Ongoing	Site principals, Classroom Teachers	Technology Oversite Committee will receive updated bi-annual report on progress.	Pre and post student assessments

Review existing curricular units on Intellectual Property for effectiveness and relevancy. Make updates as needed for updated training of designated site liaisons based on the previously mentioned training timeline.	Annually by April	Assistant Superintendent, Curriculum & Instruction; Coordinator, Library Services; Teacher Librarians,	Technology Oversite Committee will receive updated bi-annual report on progress.	Training sign in sheets and revised units as necessary

3g. List of goals and an implementation plan that describe how the district will address Internet safety, including how to protect online privacy and avoid online predators. (AB 307)

The following goal is a sub-goal of TwinRiversUSD over arching vision to "Improve Student Achievement & Close Student Achievement Gaps through student acquisition of 21st Century Skills". TwinRiversUSD has established this goal as a means to achieve the following NETP learning goal:

1.0 Learning: All learners will have engaging and empowering learning experiences both in and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.

It is our belief that technology plan goals which scaffold towards accomplishing the NETP provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals. In this section our goals, benchmarks, and implementation plan focus on the "ethical participants in our globally networked society" portion of the NETP Learning 1.0 goal.

Goal 3g.1: Students will increase their understanding regarding Internet Safety which includes: cyber bullying; safety for the interactive web; creating a positive online identify; cyber citizenship; inappropriate websites; safeguards in social networking; and text messaging safety.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Using various resources, develop curricular units per grade level on Internet safety including: privacy, cyber bullying and methods for protection against online predators.	Year One: August-October	Assistant Superintendent Curriculum and Instruction; Coordinator, Library Services; Teacher Librarians, Director, Instructional Technology	Technology Oversite Committee will review the developed units.	Completed units

Provide training focusing on internet safety for teachers and administrators. Training to be provided to at least one designated site liaison.	Initial Roll-out Year 1: Oct-December Ongoing/Updated Trainings Year 2 &3: Sept-Oct Annually	Assistant Superintendent, Curriculum and Instruction; Coordinator, Library Services; Teacher Librarians; Director, Instructional Technology	Technology Oversite Committee will receive updated bi-annual report on progress.	Internet Safety Survey/Evaluation; Pre/Post Test; Sign in sheets for Staff Development;
Teachers will deliver curricular units focusing on Internet safety which includes: cyber bullying, safety for the interactive web, creating a positive online identify, cyber citizenship, inappropriate websites, safeguards in social networking, and text messaging safety.	Initial Rollout Year 1: By March Year 2 & 3: Ongoing	Classroom teachers	Technology Oversite Committee will receive updated bi-annual report on progress.	Pre/post student assessments
Review existing curricular units on Internet Safety for effectiveness and relevancy. Make updates as needed for updated training of designated site liaisons based on the previously mentioned training timeline.	Annually by April	Assistant Superintendent, Curriculum and Instruction; Coordinator, Library Services; Teacher Librarians; Director, Instructional Technology	Technology Oversite Committee will receive updated bi-annual report on progress.	Revised units. Sign in sheets for Staff Development

3h. Description of the district policy or practices that ensure equitable technology access for all students.

It is a district goal to provide ALL students and teachers with equal access to all of the school's technology to support achievement of the academic standards in the classroom, district curricular goals, and ultimately for success in the workplace. Student subgroups will have access to the same NETS integration activities and high standards expected of all other students, although the programs and methods for achieving the objectives may be adapted to best meet individual student needs. Students with an active Individualized Education Program (IEP) have appropriate access to technology hardware, peripherals, and software including assistive technology as deemed appropriate and defined by the IEP site team and the students' IEP goals. EL students have appropriate access to technology hardware, peripherals, and software needed to support their English language acquisition as well as their achievement of the academic standards.

3i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.

TwinRiversUSD has established this goal as a means to achieve the following National Educational Technology Plan assessment goal:

2.0 Assessment: Our education system at all levels will leverage the power of technology to measure what matters and use assessment data for continuous improvement.

It is our belief that technology plan goals which scaffold towards accomplishing the National Education Technology Plan provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals.

Applicable Digital Resources:

- AERIES Student Information System
- School Loop Content Management System
- Datawise Measures Assessment System
- Word, desktop publishing, and Outlook e-mail.
- District IT work order management system and equipment inventory database.
- School Loop Help Resources
- Instructional Technology Department Website http://edtech.twinriversusd.org

Goal 3i.1: Leverage technology for student data collection, analysis and decision-making to improve teachers' ability to use data to improve instruction.

Objective 3i.1.1: By June 2014, 75% of secondary teachers and 50% of (4-6) elementary will use School Loop's content management system to enter student grades and manage student achievement information more effectively.

Benchmarks:

- Year 1: By June 2012, 55% of secondary teachers and 30% of (4-6) elementary teachers will use School Loop's content management system to enter student grades and manage student achievement information more effectively.
- Year 2: By June 2013, 65% of secondary teachers and 40% of (4-6) elementary teachers will use School Loop's content management system to enter student grades and manage student achievement information more effectively.
- Year 3: By June 2014, 75% of secondary teachers and 50% of (4-6) elementary teachers will use School Loop's content management system to enter student grades and manage student achievement information more effectively.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
As part of the hiring process, new teachers will be registered in School Loop after being added to the schools SIS (AERIES) database.	Annually as hired	Human Resources, Instructional and Information Technology Departments, Database Team, Site Administration and Counseling Departments, District Counseling Program Specialist.	Human Resources will inform the Database Team and Site Counseling Departments of the new hires. Database Team and Site Counseling Departments will add new teachers to AERIES and inform the District Counseling Program Specialist. District Counseling Specialist will provide Informational and Instructional Technology Departments with a compiled list of new teachers by site. Informational and/or Instructional Technology Department will register new teachers in School Loop.	Successful registration of new teachers using listed process.
Ensure that all teachers have active and accurate accounts in their site system.	Annually August-September and throughout the year as needed	Instructional Technology Department, Information Technology Department, Database Team, Human Resources, Site Administration and Counseling Departments, District Counseling Program Specialist	Human Resources will inform the Informational Technology Department of any teachers who transfer school sites or roles through a compiled list as needed. Site Administration and Counseling Departments will verify accurate teacher records and inform Informational and Instructional Technology Departments of inaccuracies.	School Loop User Account Management Tools

Ensure that all teachers can access their site system.	Annually: August-September	Site Administration and Counseling Departments	Site Administration will verify that all teachers can log-in through dedicating time at a staff meeting or direct communication and tracking responses of teachers. Site Administration and Counseling Departments will direct teachers on how to reset their passwords when needed.	meeting notes/ agendas, School Loop account activity/ history lookup tools
Gradebook training will be available for all staff on an annual basis through site based, district level, and/or virtual formats.	Annually: August-October On going via online resources and after school forums.	Instructional Technology Department, Site Administration.	Instructional Technology will offer school-wide training through requests made by site administration. Instructional Technology will support sites through on going development and maintenance of online resources. (http://edtech.twinriversusd.org http://help.schoolloop.com	Meeting notes/agenda, training calendar, Usage Reports, Parent, Student, Teacher, Counselor informal and formal feedback.
Identify site teacher leaders to assist others in the daily usage and basic technical support.	Annually: August	Site Administration, Instructional Technology Department	Site Administration will identify the site teacher leader and communicate their choice to the Instructional Technology Department. Instructional Technology Department will maintain a district list of identified site teacher leaders.	List of site teacher leaders
Provide site teacher leaders with training, which focuses on how to support their site effectively. i.e. common user issues and best practices.	Annually: September	Site Administration, Instructional Technology Department	Instructional Technology Departments will facilitate the annual training for identified site teacher leaders.	Meeting notes/agenda

Site Teacher Leaders will meet quarterly with site administration to discuss issues and best practices.	Quarterly as decided upon by the site	Site Teacher Leaders, Site Administration, Instructional Technology Department	Site Administration will schedule and hold quarterly meetings at their discretion. Site Teacher Leaders will provide Site Administration a "status" report and assist in identifying and patterns of need. Site Administration will communicate the outcomes of these meetings to the Instructional Technology Department. Instructional Technology Department will respond to site needs as needed.	Meeting notes/ agendas, email communications
Reflect on the effectiveness of the years work and make changes as needed for the following school year	Annually: May-June	Instructional Technology Department, Site Teacher Leaders, Site Administration	Instructional Technology Department will review the collected outcomes of site quarterly meetings, usage reports, and feedback noting district-wide patterns/trends. Instructional Technology will decide based on the results of the review: any changes to the amount and type of support, any revisions needed to annual training.	Usage reports, formal and informal feedback, Email communication and notes.

Train head counselors across all secondary school sites in how to export grade-reporting data from the content management system to the student information system.	Annually: September, on-going support during grade reporting windows as needed.	Instructional Technology Department, District Counseling Program Specialist, Informational Technology Database Department	Instructional Technology Department will train and provide a grade exporting "guide" to the District Counseling Program Specialist. District Counseling Program Specialist will train Site Counseling Department Chairs. Informational Technology Database Department will provide support when needed.	successful imports and mailed report cards, meeting notes/agendas, informal communication between all parties, grade exporting "guide"

Objective 3i.1.2: By June 2014, 75% of teachers will make data a part of an ongoing cycle of instructional improvement

Benchmarks:

- Year 1: By June 2012, 55% of all teachers will make data a part of an ongoing cycle of instructional improvement
- Year 2: By June 2013, 65% of all teachers will make data a part of an ongoing cycle of instructional improvement
- Year 3: By June 2014, 75% of all teachers will make data a part of an ongoing cycle of instructional improvement.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Create a District Data Team to centrally establish and coordinate data collection, and best practices associated with data analysis and decision making.	Year 1: September	Director, Instructional Technology Director, Assessment and Accountability	Professional Development Committee will receive regular reports from the District Data Team on progress.	Annual surveys given to site administrators and teachers
Collect and prepare a variety of data about student learning.	Year 1: Process started in August Year 1-3: Ongoing	District Data Team	District Data Team will produce a list of recommendations for sites regarding data collection.	Minutes from Data Team meetings

Develop best practices to interpret data and develop hypothesis about how to increase student learning and provide professional development opportunities to school sites.	Year 1: Initial report due in June Year 2 & 3: Professional Development opportunities available in August, annual report due in June	District Data Team	Professional Development Committee will monitor recommendations and professional development opportunities.	Created Report; PD sign in sheets
Develop best practices to modify instruction to test hypothesis and increase student learning and provide professional development opportunities to school sites.	Year 1: Initial report due in June Year 2 & 3: Professional Development opportunities available in August, annual report due in June	District Data Team	Professional Development Committee will monitor recommendations and professional development opportunities.	Created Report; PD sign in sheets
Develop best practices on how to establish a clear vision for schoolwide data use and provide professional development opportunities to school sites.	Year 1: Initial report due in June Year 2 & 3: Professional Development opportunities available in August, annual report due in June	District Data Team	Professional Development Committee will monitor recommendations and professional development opportunities.	Created Report; PD sign in sheets
Develop best practices on how to provide supports that foster a data-driven culture within the school and provide professional development opportunities to school sites.	Year 1: Initial report due in June Year 2 & 3: Professional Development opportunities available in August, annual report due in June	District Data Team	Professional Development Committee will monitor recommendations and professional development opportunities.	Created Report; PD sign in sheets

Develop best practices to utilizing the district student assessment database system, Measures and, provide professional development opportunities to all teachers.	Year 1: Initial report due in June Year 2 & 3: Professional Development opportunities available in August, annual report due in June	District Data Team	Professional Development Committee will monitor recommendations and professional development opportunities.	Created Report: PD sign in sheets

3j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

TwinRiversUSD has established this goal as a means to achieve the following National Educational Technology Plan productivity goal:

5.0 Productivity: Our education system at all levels will redesign processes and structures to take advantage of the power of technology to improve learning outcomes while making more efficient use of time, money, and staff.

It is our belief that technology plan goals which scaffold towards accomplishing the National Education Technology Plan provides the most effective means for producing life long successful 21st Century Citizens and by result meet our district/state achievement goals.

Applicable Digital Resources:

- AERIES SIS
- School Loop CMS
- Word, desktop publishing, and Outlook e-mail.
- District IT work order management system and equipment inventory database.
- School Loop Help Resources
- Instructional Technology Department Website http://edtech.twinriversusd.org

Goal 3j.1: Goal 3: Improve Communication Among Home, School, District, and Community through advanced technology while still making efficient use of time, money, and staff.

Objective 3j.1.1: By June 2014, 75% of teachers and administrators will be accessible to parents and community members through School Loop's webpage, shared calendar, and messaging systems.

Benchmarks:

- Year 1: By June 2012, 55% of teachers and administrators will be accessible to parents and community members through School Loop's webpage, shared calendar, and messaging systems.
- Year 2: By June 2013, 65%of teachers and administrators will be accessible to parents and community members through School Loop's webpage, shared calendar, and messaging systems.

- Year 3: By June 2014, 75% of teachers and administrators will use be accessible to parents and community members through School Loop's webpage, shared calendar, and messaging systems.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
As part of the hiring process, new teachers will be registered in School Loop after being added to the schools SIS (AERIES) database.	Annually as hired	Human Resources, Information and Instruction Technology, Site Administration, District Counseling Program Specialist.	Information and Instruction Technology will facilitate an annual meeting to determine the process to be used.	Successful registration of new teachers using listed process.
Ensure teachers and administrators have active and accurate accounts within their site system.	Annually August-September and throughout the year as needed	Human Resources, Information and Instruction Technology, Site Administration, District Counseling Program Specialist.	Information and Instruction Technology will facilitate an annual meeting to determine the process to be used.	School Loop User Account Management Tools
Ensure that all teachers and administrators can access their site system.	Annually: August-September and throughout the year as needed	Instructional Technology Department, Site Administration, Counseling Departments	Instructional Technology Department will verify that all site administration can log-in and provide direction of password resetting when needed. Site Administration will verify that all teachers can log-in.	meeting notes/agendas, School Loop account activity/history lookup tools
Identify and implement best practices for registering, training, and supporting parents and students in the content management system at each school site.	August: Identify September-June: Implement and Monitor	Instructional Technology, Department Site Administration	Instructional Technology will collaborate with site leadership to establish and implement a rollout plan for registration and support of parents and students.	usage reports, records of total students and parents register, registration "guide"

Train all staff on how to access and use School Loop's webpage, shared calendar, and messaging systems.	Years 1 & 2	Instructional Technology Department	Instructional Technology Department will maintain a calendar of offerings (past & future) to assess status and needs of school sites.	completed content rich Web pages, Usage Data/Activity Reports
Train all District Office Administrators and/or designees on how to access and use School Loop's webpage, shared calendar, and messaging systems.	Annually & in response to changes in employment	Communication Department	Communications Department will maintain a calendar of offerings (past & future) to assess status and needs of district office administrators.	completed content rich Web pages, Usage Data/Activity Reports
Identify site teacher leaders to assist others in assessing and supporting daily usage basic technical support.	Annually: August	Site Administration, Instructional Technology Department	Instructional Technology will maintain a district list of identified site teacher leaders. Site teacher leaders will meet quarterly with site administration to discuss issues and best practices.	List of site teacher leaders; meeting notes/ agendas, email communications
Provide site teacher leaders with training, which focuses on how to support their site effectively. I.e. common user issues and best practices.	Annually: September	Instructional Technology Department	Instructional Technology will facilitate the annual training for identified site teacher leaders.	Meeting notes/agenda
Every site will hold at least one School Loop parent training session annually.	Annually	Site principals	Instructional Technology Department will ensure that each site has the capacity to provide parent training sessions.	Calendared training sessions and Sign In sheets

Identify, train, and support site webmasters.	Annually August-September: Initial Meeting and Training October-June: ongoing support through webmaster refresher open labs and communication/collaboration through School Loop district wide group.	Instructional Technology Department, Site Administrators, Site Webmasters	Instructional Technology & Site Administration will monitor site webpage and determine annually if a change in webmaster is needed.	Attendance Logs, School Loop Group history, evaluation by site administration, usage reports.
Survey staff, students and parents following implementation on annual basis.	Annually	Instructional Technology Department	Surveys will be reviewed and training plan will developed.	TRUSD Parent Survey
Training developed and delivered by Instructional Technology to assist teachers who need additional training.	Years 1, 2 & 3: Monthly lab times for teachers to receive specific instruction	Instructional Technology Department	Instructional Technology Department will facilitate the creation and implementation.	Sign in sheets

Objective 3j.1.2: By June 2014, 50% of parents and community members will utilize School Loop's webpage, shared calendar, and messaging systems.

Benchmarks:

- Year 1: By June 2012, 30% of parents and community members will utilize School Loop's webpage, shared calendar, and messaging systems.
- Year 2: By June 2013, 40% of parents and community members will utilize School Loop's webpage, shared calendar, and messaging systems.
- Year 3: By June 2014, 50% of parents and community members will utilize School Loop's webpage, shared calendar, and messaging systems.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Develop a systematic school wide rollout plan for sites to use School Loop. This will include a parent education component.	Year 1: December	Communication Department; Instructional Technology Department	Technology Oversite Committee will receive a bi-annual report from the Instructional Technology Department showing usage.	School Loop report generated bi-annually
As part of the rollout plan, site leaders and/or designees will be trained on a schoolwide adoption model that focuses on parent enrollment and education.	Year 1 Year 2 and 3 - Revisions as necessary	Instructional Technology Department	Technology Oversite Committee will receive a bi-annual report which includes a training calendar.	Training calendar
All sites will utilize the rollout plan throughout the year by providing training and support for parents to use School Loop. Every site will hold at least one School Loop parent training session annually.	Year 1 Ongoing as needed	Site Principals and/or designees	Instructional Technology Department will ensure that each site has the capacity to provide parent training sessions. Technology Oversite Committee will receive a bi-annual report from the Instructional Technology Department showing usage.	School Loop report generated bi-annually
Work with School Loop and other district adopted software applications with the goal of providing a more fully integrated system that provides parents with critical educational information on their children.	Annually August-September and throughout the year as needed	Instructional Technology Department	Instructional Technology Department will report progress on this to the Technology Oversite Committee bi-annually.	School Loop report generated bi-annually

Survey staff, students and parents following implementation on annual basis.	Annually	Instructional Technology Department	Surveys will be reviewed and training plan will developed.	TRUSD Parent Survey
Training developed and delivered by Instructional Technology to assist teachers who need additional training.	Years 1, 2 & 3: Monthly lab times for teachers to receive specific instruction	Instructional Technology Department	Instructional Technology Department will facilitate the creation and implementation.	Sign in sheets

3k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.

The district curriculum, data, and technology directors and coordinators, school administrators, and the Technology Oversite Committee (TOC) will conduct ongoing formative data reviews. The TOC will meet at least eight times per year to track the development and implementation of all tech plan activities and accomplishments. Modifications to our Tech Plan implementation strategies or timeline are made as needed to ensure that we are meeting or exceeding our benchmarks and goals by June 2014. Annual summative data analysis and needs assessments are conducted in late August / September after the state releases all relevant district data and schools complete early assessments of incoming students. The Executive Director, Instructional and Technology Support Services is responsible for an annual summative performance report to stakeholders in October and a mid-year tech plan implementation status report to stakeholders in February.

The data will include but not limited to:

•An analysis of the CST and CELDT scores to assess academic growth;

•An analysis of student progress and usage data produced by academic software and web applications (such as Learn 360, School Loop, Measures) to assess academic growth and the extent of use of the applications;

•An analysis of School Loop GradeBook and TeleParent usage to assess the extent of use of the applications;

•An analysis of the Project Tomorrow Student Technology Proficiency Skills;

•An analysis of the TwinRiversUSD Student Technology Survey plus the parent and student surveys completed to assess student technology use in academic areas and parent communications;

•An analysis of the Ed Tech Project Tomorrow Survey and District Technology Use Survey to assess teacher and administrator proficiencies.

4. Professional Development

4a. Summary of teachers' and administrators' current technology skills and needs for professional development.

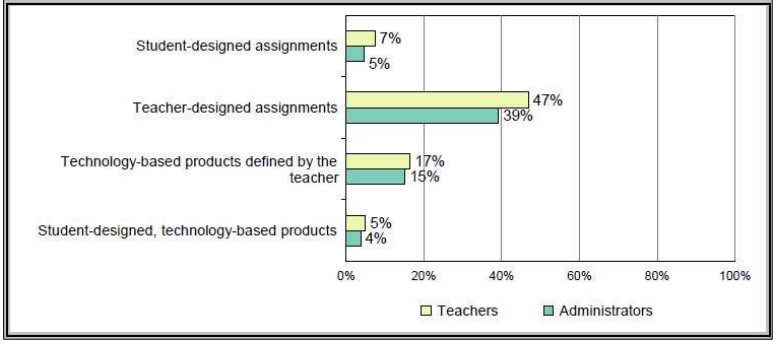
If we are able to adequately prepare all staff members to meet the needs of teaching in a 21st Century Learning environment, we need to make sure that we provide professional development opportunities to support the district employees with this ever changing learning environment. Our Education Technology Plan provides a summary of our district teachers' and administrators' current 21st century skills (including technology) from the 2009-2010 D21 Metiri Project Report. The Report is based on surveys given to 15 site administrators, detailed site visitation surveys done at (4) of our elementary schools, (1) middle school and (1) high school. Our survey findings are summarized by discrete skills in order to better facilitate professional development planning that meets our identified needs and technology plan goals. Additional district technology integration data can be found in Component 3b of our Technology Plan.

Our district will review the Dimension21 (D21) survey data and teacher input annually in the spring to plan for district sponsored professional development activities for the following school year. In addition to the D21 Survey administrators, teachers, parents and students will be asked to complete Project Tomorrow's, Speak Up Survey annually to give us a better understanding as to how current technologies are being used in their world at home as well as in the classroom environment. The Speak Up Survey measures both technology and 21st century skills development. We have not as yet received our findings from our initial baseline survey.

Survey Data

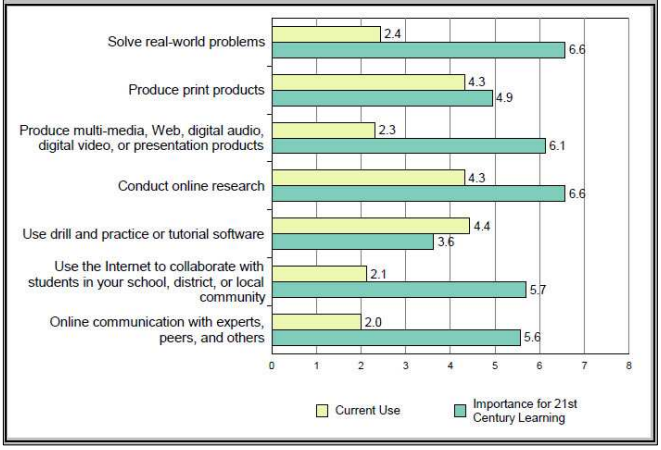
The D21 2009-2010 Metiri Project Report provided us with baseline data based on a valid percentage of district teachers and administrators as of September 2010. The charts below allow us to see perspectives from both teachers and administrators on different aspects of technology use and 21st century skill integration. We are considering the results of this Report to be used as a baseline for the District. In general it is noted

Figure D3-12: Percentage of work in classrooms in your school that falls in the following categories, as reported by administrators and teachers:



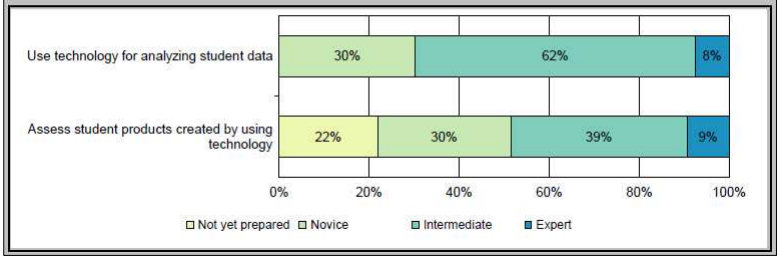
Two key factors in student engagement are opportunities for student choice and student creativity. **(Figure D3-12)**

Figure D4-7: Administrator ratings of current uses of technology by students in their schools, and the administrators rating of the importance of such uses to 21st Century learning:



Technology use in schools is shifting to more collaborative and innovative uses of Internet resources, Web 2.0 tools, and multimedia production. This chart **(Figure D4-7)** provides insights from administrators as to current use and importance of such technology uses by students.

Figure D5-6:Teacher level of preparedness in assessment.
The percentage of teachers indicating their preparedness to inform the decisions and practices using data, research, and technology.



This chart **(Figure D5-6)** asks about teacher preparedness to assess technology-based student products and to use technology for assessment purposes.

This chart shows administrators' perspectives on teacher preparedness across a broad array of teaching strategies critical to 21st Century learning. **(Figure D5-7)**

Figure D5-7: Teacher level of preparedness: 21st Century learning.
Percentage of administrators reporting on levels
of teacher preparedness related to 21st Century learning

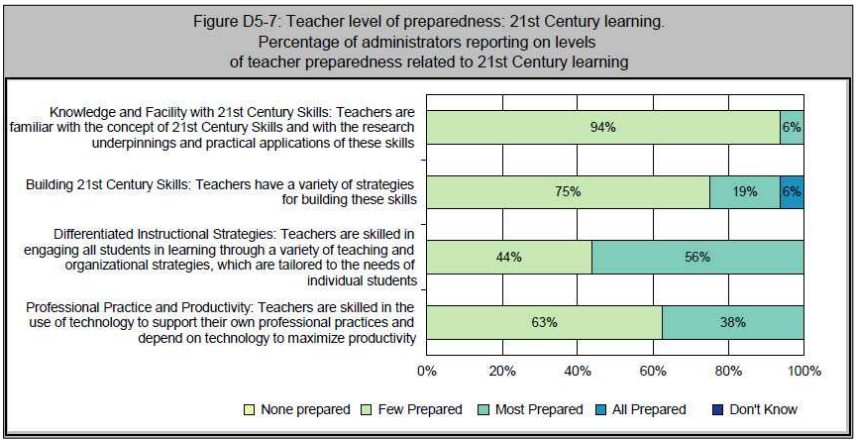
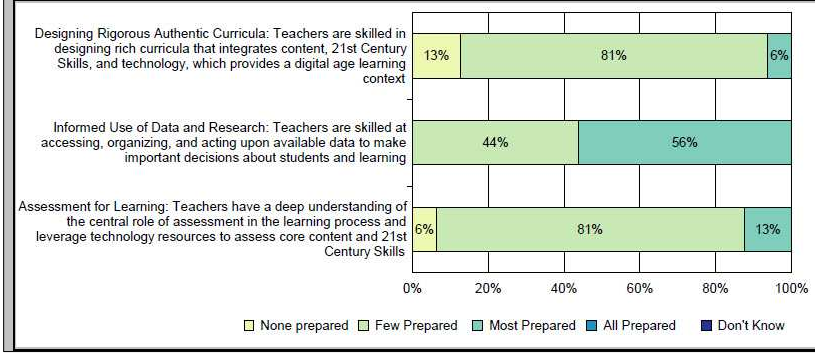
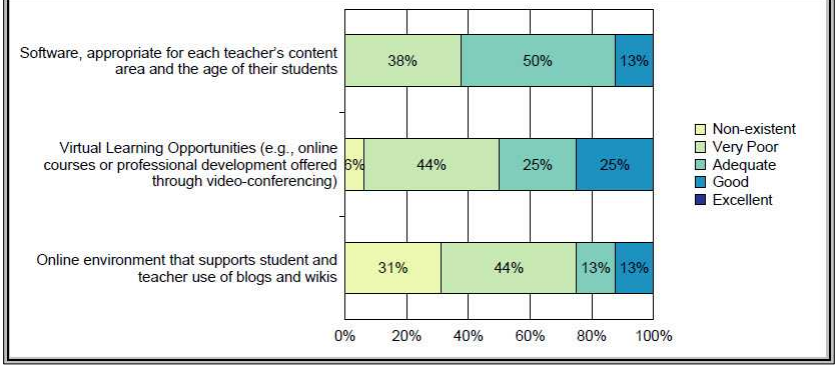


Figure D5-8: Teacher level of preparedness: 21st Century learning.
Percentage of administrators reporting on levels
of teacher preparedness related to 21st Century learning



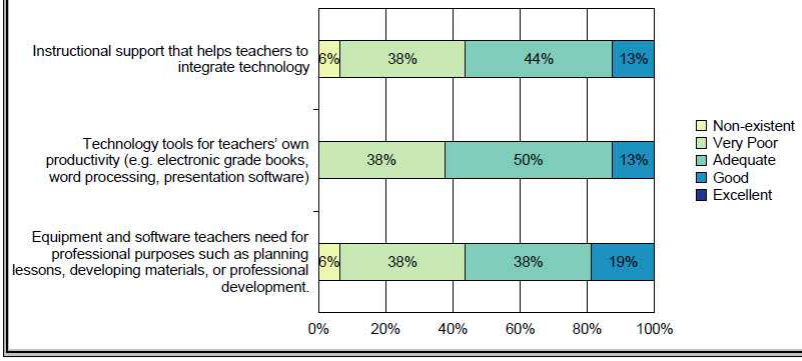
This dimension **(Figure D5-8)** on teacher proficiency is one of the most critical.

Figure D6-7: Accessibility to online learning structures.
Percentage of administrators who reported in each accessibility category for each item.



The schools will want to ensure accessibility to online learning structures including blogs, wikis, communication systems, online courses, etc. **(Figure D6-7)**

Figure D6-9: Support for teacher's professional use of technology.
Percentage of administrators who reported in each accessibility category for each item.



Support also includes scaffolding and building capacity of teachers to use technology in their professional practice. The chart below **(Figure D6-9)** provides a snapshot of current perceptions of administrators on the extent to which their teachers' professional use of technology is supported.

As a district we will annually review both the D21 survey data and Speak Up Survey each spring. The combination for the two survey programs, Speak Up and D21, will provide the necessary feedback in technology integration, and progress towards 21st century skills development to plan for professional development.

Twin Rivers will begin a systematic roll out of a comprehensive technology professional development plan based on the newly developed National Educational Technology Plan.

4b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (sections 3d through 3j) of the plan.

Our professional development action plans are based on a thorough needs analysis and include clear needs-based goals and measurable objectives that will provide our teachers and administrators with sustained, ongoing professional development necessary to implement the Curriculum Component (Section 3) of our education technology plan.

TwinRiversUSD has decided to use the following National Educational Technology Plan goals published on March 5, 2010 to shape our own.

3.0 Teaching: Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that enable and inspire more effective teaching for all learners.

It is our belief that technology plan goals which scaffold towards accomplishing the National Education Technology Plan provides the most effective means for supporting teachers in producing life long successful 21st Century Citizens which by result meet our district/state achievement goals.

The professional development goals are applicable for all content listed in sections 3a-3j.

Goal 4b.1: Teachers will increase their capacity to utilize various technologies that support all learners through a dynamic and robust technology professional development program.

Objective 4b.1.1: By June 2014, 75% of teachers will participate in appropriate professional development to assist them in using the technology components which connects them to content, resources, expertise and learning experiences with data literacy, integrating technology tools, 21st century skills, social-based learning tools, mobile learning, online learning, digital rich curriculum, Internet safety and parental communication.

Benchmarks:

- Year 1: By June 2012, 55% of teachers will participate in appropriate professional development to assist them in using the technology components which connects them to content, resources, expertise and learning experiences with data literacy, 21st century skills, social-based learning tools, mobile learning, online learning, digital rich curriculum, Internet safety and parental communication.
- Year 2: By June 2013, 65% of teachers will participate in appropriate professional development to assist them in using the technology components which connects them to content, resources, expertise and learning experiences with data literacy, 21st century skills, social-based learning tools, mobile learning, online learning, digital rich curriculum, Internet safety and parental communication.
- Year 3: By June 2014, 75% of teachers will participate in appropriate professional development to assist them in using the technology components which connects them to content, resources, expertise and learning experiences with data literacy, 21st century skills, social-based learning tools, mobile learning, online learning, digital rich curriculum, Internet safety and parental communication.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Work collaboratively with the Curriculum and Instruction Department, and District Data Team to develop a systems-approach, district-wide technology integration professional development plan. Include: hardware, software and personnel needed.	Year 1 – Initiate plan Year 2 - Plan is completed and updated annually	Instructional Technology Department	Director, Instructional Technology will work with Assistant Superintendent, Curriculum and Instruction to determine action plan with benchmarks. Coordinated plan will be presented to Tech Oversite Committee	Developed plan

Secure purchasing agreements for hardware that are necessary to expand classroom integration of 21st century skills, social-based learning tools, online learning, mobile learning, and digital rich curriculum.	Year 1 -August Ongoing	Director, Instructional Technology; Manager, User Support	Executive Director, Technology Services Assistant meets weekly with managers from Instructional Technology Support Services to coordinate purchasing agreements	Secured agreements
Develop comprehensive list of Web 2.0 applications that teachers and students can use as alternatives to traditional paper/pencil approach. Have multiple integration examples available. Professional development units developed.	Year 1 – Develop list and PD units Ongoing	Instructional Technology Department	Director, Instructional Technology meets weekly with Ed Tech Coordinators to review progress. List is published and updated on district website.	Published list on Ed Tech webpage; Units posted.
Provide multiple opportunities for teachers to participate in technology based professional development. Include after and before school, site based and Saturdays.	Year 1 – October Ongoing	Director, Instructional Technology	Director, Instructional Technology works with Ed Tech Coordinators to create, monitor and assess technology professional development program. Placed on weekly meeting agendas.	Professional development Sign In sheets
Online and hybrid (online and face-to-face) opportunities for delivery of professional development will be provided. See Goal 4b.2.	Year 1 - Available by February, 2012 Ongoing	Director, Instructional Technology	Director, Instructional Technology works with Ed Tech Coordinators to create, monitor and assess online and hybrid technology professional development learning opportunities. Placed on weekly meeting agendas.	Developed training modules. Attendance in district offered online professional development will be monitored.

The Assessment and Accountability department will work with the Instructional Technology Department to develop and maintain a website which connects teachers to data, content, and relevant resources.	Year 1 – website designed and published	Director, Assessment and Accountability; Director Instructional Technology	District Data Team will monitor and assess the website based on agreed upon criteria including: robustness, richness, relevancy, ease of use	Website Review by District Data Team placed on Agendas at least two times per year
The district Professional Development Committee will annually assess all professionally development opportunities	Done annually in Spring	Assistant Superintendent, Curriculum and Instruction	Assistant Superintendent, Curriculum and Instruction, will conduct a thorough analysis and report of the all professional development opportunities the district provided over the course of the year, which will include a description of the mediums utilized.	Completed report within Professional Development Committee meeting Minutes

Goal 4b.2 Staff will have the opportunity to participate in professional learning that is collaborative, coherent, and continuous and that blends more effective in-person course and workshops with the expanded opportunities, immediacy and convenience enabled by online learning.

Objective 4b.2.1: By June 2014, 65% of teachers will participate in collaborative professional learning in an online environment to assist them in using the technology initiatives listed in Sections 3d. – 3j.

Benchmarks:

- Year 1 - By June 2012, 25% of teachers will participate in collaborative professional learning in an online environment to assist them in using the technology initiatives listed in Sections 3d. – 3j.
- Year 2: By June 2013, 45% of teachers will participate in collaborative professional learning in an online environment to assist them in using the technology initiatives listed in Sections 3d. – 3j.
- Year 3: By June 2014, 65% of teachers will participate in collaborative professional learning in an online environment to assist them in using the technology initiatives listed in Sections 3d. – 3j.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Instructional Technology Department will determine the best suited online Learning Management System (LMS) that enables teachers to take online courses, tap into experts and best practices for just-in-time learning and provide platforms and tools for educators to design and develop resources and share them with their colleagues	Year 1 – completed by December Ongoing review	Director, Instructional Technology	Director, Instructional Technology works with Ed Tech Coordinators to create, monitor and assess online and hybrid technology professional development learning opportunities. Placed on weekly meeting agendas.	Functioning District Learning Management System
The Curriculum Department will work with the Instructional Technology Department to provide resources, platforms for collaboration and tools within the LMS. Enlist outside experts in online instruction to form partnerships.	Year 1 - December Ongoing	Director, Instructional Technology	Director, Instructional Technology will coordinate quarterly meetings with the Ed Tech Coordinators and Curriculum Coordinators	Agendas Completed courses and workshops
Begin courses and workshops within LMS.	Year 1: February	Director, Instructional Technology	Director, Instructional Technology will work with Coordinators.	Course attendance; # of teachers with accounts

Continue to build LMS capacity to provide a collaborative learning environment. Increase course content and resource by 50% every year.	Year 2 Ongoing	Director, Instructional Technology	Director, Instructional Technology will work with Coordinators.	Course count; attendance; # of teachers with accounts

4c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned activities including roles and responsibilities.

TwinRiversUSD has an established Professional Development Committee. Annual professional development needs assessments at the start of each school year will drive our district's professional development schedule for that year. The district technology and curriculum directors will track implementation of the instructional tech professional development plan monthly and report progress at our monthly district/ site admin meetings. The district curriculum, data, and technology director, school administrators, and the rest of the Technology Oversite Committee team will conduct ongoing formative data reviews. The team will track the development and implementation of all tech plan activities and accomplishments. Between monthly meetings, pertinent tech plan updates are shared with the district via the district eWAG. Modifications to our Tech Plan activities will be made as needed in order to insure that we meet or exceed our goals by June 2014. The Executive Director, Instructional & Technology Support Services is responsible for a mid-year tech plan implementation status report to stakeholders annually in February. Annual summative data analysis and professional development needs assessments will be conducted between June and September, after the state releases all relevant district data and schools complete early assessments of incoming students. The Executive Director, Instructional & Technology Support Services is responsible for an annual summative performance report to stakeholders in October.

5. Infrastructure, Hardware, Technical Support, and Software

5a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components of the plan.

Existing Hardware: Computers

TRUSD currently has 13,700 total computing stations. Those include:

- 9,850 Student workstations
- 2,450 Teacher workstations
- 1,400 admin workstations

Hardware wise these are made up of:

- 1,500 nComputing based student workstations
- 700 Thin Client student workstations
- 11,500 total computers of which7,650 are student computers
- 2,450 are teacher computers
- 1,400 are admin computers
- 8,500 are Desktops
- 3,000 are Laptops

All classrooms have at least one computer.

Nearly all sites have at least one computer lab or mobile laptop cart.

The age of computers varies by school site depending on numerous factors. The table to the right lists the ages of the current PC population.

Age	Percentage
< 1 Year	4%
1 - 2 years	16%
2 - 3 years	9%
3 - 4 years	17%
4 - 5 years	5%
6 - 7 years	9%
7 - 8 years	24%
9 - 10 years	8%
> 10 years	7%

Other Classroom Devices

TRUSD has LCD projectors and 501 SMART Boards deployed in classrooms throughout the district. Nearly all classrooms are equipped with an audio enhancement system.

Inventory Systems

The district utilizes BigFix, Altiris, and several internally developed systems to inventory and maintain its computer population.

Many district projectors are connected to the network; however, no existing inventory system is in place for these devices.

TRUSD is currently implementing a singleVoIP phone system for the entire district.

Existing Internet Access: All school sites and business support locations have at least a 100mbps connection to the network. All classrooms at secondary sites have wired connectivity for a full complement of computers or other devices. All elementary sites have at least one wired network connection per room and switches are deployed as needed for complete connectivity.

All secondary schools and most elementary schools have wireless connectivity available on site.

A wireless network is also available at many district sites which allows devices used for educational purposes, but not expressly owned by the district, to access the Internet. Access to this network is turned on or off at various locations depending on the needs of each site administrator.

Existing Electronic Learning Resources: TRUSD currently uses AERIES for its student information system along with School Loop for grade book integration and as a parent portal. Parents can also use ABI, a web portal for Aeries, to view student attendance and academic progress.

As stated in section 3a, The District uses numerous software packages to strengthen the curriculum in the areas of Math, Language Arts, Science, Architecture, World Languages, Visual and Performing Art, Vocational Education, and Special Education. Teachers are using this software to supplement and enrich the curriculum. Intervention programs being run both during, before and after school also use these programs to varying degrees. Software applications are loaded on classroom computers, libraries and computer labs where applicable.

Below is a copy of the figure from section 3a which details these applications by subject area and grade level.

SUBJECT AREA	APPLICATIONS		
Language Arts	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Clifford The Big Red Dog Phonics • Accelerated Reader • Fuzzbuzz - Level 1: Word Learning • I Love Phonics • Letters and Numbers • Reading Blaster • Top Reader • Tell A Tale • Kidspiration • Build A Book • Orchard K-3 - Reading • Reading Assistant (EL)	• Accelerated Reader • All the Right Type • Captain Zogs Main Idea • Kidspiration • Inspiration • Microsoft Office Suite • Reading Blaster • Top Reader • McDougal Littell Language of Literature Reading Assistant (EL 7-8)	• Adobe Suite • Microsoft Office Suite • AP English Language • AP English Literature • CAHSEE Test Prep • High Point Reading 9-12 • Inspiration • McDougal Littell Bridges to Lit Audio Library • Adobe Photoshop • Infotrac
Math	**Grades K-3:**	**Grades 4-8:**	**Grades 9-12:**
	• Accelerated Math • Early Math • Math Blaster • ST Math • ST Math – Fluency • Orchard K-3 - Math • Sticky Bears Math Town	• ST Math • ST Math - Fluency • Math Blaster • Accelerated Math • Mighty Math • Math Blaster – Pre-algebra	• Graph Master • Introduction to DataStudio Interactive Tutorial • Numeracy Project CAHSEE standards

	Grades K-3:	Grades 4-8:	Grades 9-12:
Social Studies	• Holt US History	• Holt US History • National Geographic (7-8)	• Holt US History • National Geographic • Prentice Hall American Government Student Express • Prentice Hall World History • US History Independence to 1914
	Grades K-3:	**Grades 4-8:**	**Grades 9-12:**
Science	• Foresman Science	• Foresman Science	• AP Biology • Glencoe Biology • Glencoe Chemistry • Holt Life Science

Special Services (K-12)	• Earobics
	• Intellitools
	• Teach Me To Talk by Soft Touch
	• Switch Basics by Soft Touch
		• Edmark Software
		• Living Books by Broderbund
		• Board Maker
		• Co-Writer
		• Speak Q
			• Software by Inclusive Technologies
			  ○ Switch It
			  ○ Patterns
			  ○ Switch It Opposites

Existing Technical Support: TRUSD employs fourteen full time technicians to support all of the sites and computers in the district. This equates to a tech to workstation ratio of roughly 978 to 1. Technical support is organized into a help desk, which provides a single point of contact for all customers, and field technicians who provide on site support. Work orders are generated and whenever possible resolved at the help desk. All large scale software deployments are dispatched from the Help Desk using BigFix, Altiris, or other automated means. When necessary field technicians are dispatched for an on site visit.

The district also utilizes available vendor services where ever possible to minimize support costs. Most new district computers are purchased with a low cost three year onsite warranty; this allows the help desk to engage an external company to resolve hardware issues without any additional cost to the district.

The district also are also three network technicians, four server technicians, three database technicians, two application developers, and two instructional technology coordinators. In addition, there are eight administrative and support staff.

5b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development Components of the plan.

Hardware Needed: TRUSD has approximately 700 computers in service that do not meet the minimum standard for support and efficient educational use. These older desktops and laptops will be phased out as funding is available for newer models. The District is currently utilizing off-lease and refurbished computers to establish a minimum standard for support and use. Additional funding to complete this process is needed.

The District is also considering using smaller form factor laptops, or "Mini's", and other "Smart" communication devices in place of desktop computers. The research and piloting of these devices is currently taking place.

Electronic Learning Resources Needed: At the secondary school sites, the District plans to find funding for Interactive White Boards. TRUSD also plans to install Interactive White Boards and audio enhancement systems at the elementary schools that currently do not have these systems installed.

Networking and Telecommunications Infrastructure Needed: TRUSD plans to connect each school site with dark fiber which will enable an increase of bandwidth from 100mbs to 1000mbs . TRUSD also must increase backup capacity to keep up with the demands of storage for curricular needs. The district is researching the possibilities of using the "cloud" for storage, file sharing, and other district services which are otherwise cost prohibitive to provide internally.

Physical Plant Modifications Needed: The Network Operations Center has several issues that need to be addressed, these include:

- The fire suppression system is currently a water based sprinkler system. This must be changed as soon as possible to a non-water based system.
- The electrical system in the facility is not to code and cannot be shut down quickly in an emergency.
- The electrical backup systems are not sufficient and have not been successfully tested. The electrical backup can not currently be relied upon to maintain the operations center for any reasonable length of time in the event of a local power outage.

Additional electrical outlets are needed in instructional areas in elementary and secondary sites. The District conducted a survey last year to identify exact locations that are in need of additional access to power.

Technical Support Needed: While more support for technology is greatly desired, it is not anticipated that any additional positions will be created during the time period covered in this plan. The District is currently utilizing and researching additional options to make technical support more efficient and less manpower intensive

5c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in Section 5b.

Year 1 Benchmark: Identify the desktop hardware at each elementary school site to determine age, system capability, and number available to students and teachers. Target is a student to computer ratio of 5:1 Identify the access to electrical power at each elementary school site to determine what modification is necessary to adequately supply the current hardware and plan for future expansion of hardware. Identify antiquated servers and replace as budget allows. Target servers for consolidation through virtualization. Increase backup system capacity to meet current backup needs. Identify remaining sites to build out wireless infrastructure. Reorganize department to meet the support needs of the district		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
User Support Team will assess each instructional facility to determine the current hardware and infrastructure currently available at the location	July 2011 - December 2011	User Support Team
Purchase new desktop hardware as needed to meet the student to computer ratio of 5:1	July 2011 - June 2012	School site administrators
Assess currently deployed servers to determine which can be virtualized and which will need upgrading.	July 2011 - Dec 2011	ITSS Server Team

Research a backup system with the capacity to handle all of the data currently housed in the district's servers	July 2011 - Dec 2011	ITSS Server Team
Identify costs for remaining wireless build outs	July 2011 - Dec 2011	ITSS Network Team
Reorganize department staff	July 2011 - June 2012	ITSS Leadership Team
Assist school sites in deploying Smart Boards and Clickers by providing installation and training support	July 2011 - June 2012	ITSS Leadership Team

Year 2 Benchmark: Research the possibility of moving all e-mail services to the cloud. Complete wireless build out to all secondary school sites		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
Research the pros and cons of using gmail and other providers for district e-mail services	July 2011 - Dec 2011	ITSS Leadership Team
Identify costs for remaining wireless build outs at secondary school sites	By September 2012	ITSS Network Team
Assist school sites in deploying Smart Boards and Clickers by providing installation and training support	July 2012 - June 2013	ITSS Leadership Team

Year 3 Benchmark: Review technology plan for currency and modify tasks and events to match availability of budget		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
Review budget to verify that funding is available to perform equipment and software upgrades	July 2013	ITSS Leadership Team
Upgrade to Windows 7 on all eligible workstations	July 2013 - June 2014	ITSS User Support Team
Replace obsolete desktops and servers	July 2013 - June 2014	ITSS User Support Networks/Servers Team
Assist school sites in deploying Smart Boards and Clickers by providing installation and training support	July 2013 - June 2014	ITSS Leadership Team

5d. Describe the process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities.

CDE approved technology plans for benchmarks, Infrastructure, Hardware, Technical Support, and Software. Detailed implementation plans for the benchmarks noted above will be developed over the course of the summer and early fall, as staffing and procedures are clarified for Twin Rivers.

Directors of Technology Services and Instructional Technology will meet on a monthly basis with the Technology Oversite Committee to monitor progress towards meeting stated goals and benchmarks. A report of progress and recommendations will be provided to the Associate Superintendents of Business Services and Educational Services in coordination with the budget development process and Erate applications. The reports recommendations will serve to advise the recommended purchases for meeting the benchmarks established above or developed in response to the consolidation effort and emerging data/needs. As annual benchmarks for the Twin Rivers District are further clarified through the Consolidation, E-Rate and Budget Development process, they will be modified including their implementation plans, and noted as approved addendums to this plan.

6. Funding and Budget

6a. List of established and potential funding sources.

Established Funding Sources:

Funding Source	Established	Potential	Description
E-RATE	yes 87%	yes 90%	This grant pays for a significant amount of our district's equipment and network connection costs.
EETT Formula	yes	yes	Helps the district pay for technology related staff development.
NCLB Grants	yes	yes	This grant will pay for a large part of the staff development and hardware at the middle school.
Foundation Grants	yes	yes	Some of the district schools have gained valuable hardware contributions from local and national foundations.
District buyback funds	yes	yes	Pays for after school staff development
District	yes	yes	Pays for the salaries of Technology Department and for hardware and software.
School site funds (restricted and unrestricted)	yes	yes	Many of the school sites benefit from different local, state and federal funds which enable them to make hardware and software purchases.
Microsoft Settlement K12 Voucher Government Entities	yes	yes	Eligible Schools receive per student allocation for use on approved hardware and software
Local Bonds	yes	yes	Some of the combining districts have previously passed bonds. These resources must stay with their appropriate schools.

In order to alleviate expenditures from district categorical and general funds, TRUSD will actively pursue grant funding. Cost saving measures will include recycling older equipment for student use, combining existing resources, eliminating duplicated resources/serves, better pricing due to new TRUSD size.

Potential Funding Sources: TRUSD is seeking grants from the Gates Foundation as well as competitive grants from the federal government. The district is also seeking equipment donations form local businesses.

6b. Estimate annual implementation costs for the term of the plan.

Item Description	Year 1	Year 2	Year 3	Funding Source Including E-Rate
1000-1999 Certificated Salaries				
Certified Staff	$298,184	$307,129	$316,342	General Fund
2000-2999 Classified Salaries				
Classified Staff	$1,783,946	$1,837,464	$1,892,587	General Fund
3000-3999 Employee Benefits				
All Staff Benefits	$778,065	$801,406	$825,448	General Fund
5000-5999 Other Services and Operating Expenses				
Microsoft Forefront Anti Virus	$24,000	$8,000	$8,000	Microsoft Voucher, General Fund
VMware Server Consolidation	$120,000	$20,000	$20,000	Microsoft Voucher, General Fund
Site Connectivity (100 mb)	$600,000	$600,000	$600,000	E-rate, General Fund
Smart Phones	$60,000	$120,000	$120,000	EETT, E-rate, General Fund, Vendor assitance
6000-6999 Equipment				
Wireless N Access Points	$200,000	$200,000	$200,000	E-Rate
Desktop Hardware Refresh	$120,000	$120,000	$120,000	Site Funds
Smart Boards and Clickers	$120,000	$120,000	$120,000	Site Funds/E2T2
Desktop Cameras	$10,000	$5,000	$5,000	Site Funds/E2T2
Other				
Overtime	$155,581	$160,000	$160,000	General Fund
Totals:	$4,139,776	$4,173,999	$4,262,377	

6c. Describe the district's replacement policy for obsolete equipment.

Currently there is no board-adopted policy for replacing obsolete equipment. Sites and departments purchase computers and other classroom technology on an as-needed basis. However, the Instructional Technology Services and Support Department has an ongoing project to replace any PC older than the accepted minimum computer standard. This Department works with school sites and central office departments, when staffing permits, to organize the purchase and replacement of old and obsolete equipment. This program has reduced the number of old and obsolete computers to 700, from more than 2,000 originally, in the past twelve months.

Computers older than the minimum standard for support are allowed to remain on school sites while functional. When a computer is no longer functional and too old for support it is transported to a central location to be de-inventoried and disposed of. Once the school board approves of disposal we utilize a partnership with HMR Group or a comparable vendor; this agency picks up computer equipment and then hauls it away. This service is available at minimal cost and is dependent on the weight of items and whether they are pre packaged.

6d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.

The Superintendent and/or designee will develop an annual technology budget as part of the annual budget cycle. Managers will create an annual report to update the District Technology Committee, the Superintendent, Cabinet, Board, and the school site administrators. Input will be taken during the report development process prior to presentation to stakeholders, with recommendations and changes to be made where appropriate.

7. Monitoring and Evaluation

7a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.

TwinRiversUSD recognizes that technology is ever changing and the accuracy of planning for the future of technology is an ongoing challenge. It is extremely important that the Educational Technology Plan be a living document, subject to ongoing evaluation and review. This review should focus on what has been accomplished in comparison to goals outlined in the plan and the establishment of new benchmarks and goals for the future. Ongoing collection of data and the use of that data to inform decision-making and continuous improvement is embedded in our tech plan components under the monitoring and evaluation components in sections 3, 4, & 5. These sections of the tech plan include specific evaluation instruments and data that will be collected on an ongoing basis and analyzed annually to assess the tech plan’s impact on teaching and learning.

Each identified objective in our Technology Plan will be reviewed on a quarterly basis by the Executive Director, Instructional Technology and Support Services, who has the overarching responsibility for ensuring that our goals and objectives are monitored, adjusted as necessary, and ultimately achieved. In addition, the district’s core Technology Oversite Committee (TOC) will track the development and implementation of all activities and accomplishments during quarterly meetings as well as review the latest data and any needed revisions to the plan. Between meetings, the Executive Director, Instructional Technology and Support Services communicates tech planning issues and setbacks to (TOC) members and solicits feedback at meetings that are scheduled a minimum of eight times per year. In addition, Executive Director, Instructional Technology and Support Services is responsible for providing stakeholders with a formative assessment of tech plan implementation every February and an annual summative evaluation report in October.

7b. Schedule for evaluating the effect of plan implementation.

The following chart specifies the monitoring and evaluation annual timeline.

Person(s) Responsible	Process	Monitoring	Evaluation
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Provide overall Tech Plan management and coordination	Ongoing	Ongoing
Director, Instructional Technology & Professional Development Committee	Manage, coordinate, implement, monitor, and evaluate curriculum-based technology integration staff development.	Ongoing	Annually in June
Director, Instructional Technology & Professional Development Committee	Manage, coordinate, implement, monitor, and evaluate staff development focused on teaching students NETS skills.	Ongoing	Annually in February
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Coordinate, manage, and evaluate technology budget, acquisitions, installation, and maintenance.	Ongoing	Annually in August
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Standardize, develop, manage, monitor, and revise as necessary network, hardware, infrastructure, software, and technical support specifications, policies, and procedures.	Ongoing	Annually in August
Director, Instructional Technology & Professional Development Committee	Collect and analyze staff development data on technology proficiencies through the annual completion of district survey.	Ongoing	Annually in February
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Coordinate ongoing Technology Oversite Committee and stakeholder involvement.	Ongoing	Annually in August
Director, Instructional Technology & Technology Oversite Committee	Collect and analyze data regarding students' NETS skills and students' academic achievement	Ongoing	Annually in February
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Communicating tech plan implementation update to stakeholders including the district school board.	NA	Semi-annually in February and SeptemberN/A
Executive Director, Instructional Technology and Support Services & Technology Oversite Committee	Communicating annual tech plan evaluation results to stakeholders including the district school board. Parents and the community will receive annual reports via the district web site, newsletters, and press releases.	NA	Annually in October after all tech plan data for the year is in.

7c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.

Reporting the progress of the Technology Plan to its various stakeholders is important. The Executive Director, Instructional Technology and Support Services oversees the process of ensuring the learning community has updated information on a regular basis. As a member of the Superintendent Cabinet, at least bi-monthly reports are made to the superintendent and Cabinet. Board reports are given twice per year, a formative update is provided in February and a comprehensive Technology Plan update is given in October.

To ensure that teachers and others in the community have updates, technology updates are sent out via the district eWAG and Minutes of the Technology Oversite Committee (TOC) are posted on the web page.

Ongoing reviews, updates and revisions are done on a monthly basis by the TOC.

8. Collaborative Strategies with Adult Literacy Providers

Adult literacy programs are provided within the Twin Rivers Adult School. The Twin Rivers Adult School offers adult literacy programs in High School Completion, Adult Basic Education, CAHSEE Preparation, GED Preparation, English as a Second Language, Citizenship Classes, and Adults with Disabilities.

Adult literacy programs are currently incorporating technology into its classes, and engaging in ongoing discussion to discover how all parties may collaborate to better provide services to our students, our parents and the district community. We are working on a plan to extend the availability of our Libraries and Library Media Centers during non-school hours to meet needs of our surrounding communities.

In addition, we plan to better connect with other county adult literacy programs to maximize the options for our district community. Sacramento County ROP offers training similar to that in TwinRiversUSD and Sacramento County Libraries offer free Adult Literacy Service. In addition our local Los Rios Community College System and CSU Sacramento provide opportunities for developmentally disabled adults through a non-profit agency - Training Toward Self-Reliance (TTSR).

Twin Rivers Adult School will continue to receive partial district support from District Instructional and Technology Support Services. Representatives from the Adult Education Technology Action Team will continue to keep contact with representatives of the stakeholder group to measure the effectiveness of the current programs and to define services; collaboratively pursue adult literacy funding sources; explore best practices on technology integration to support adult literacy; and explore ways to improve the continuum of education support services and options to our students, parents and the community in general. We are excited about the enthusiasm that collaboration initial planning meetings are already generating in our community.

9. Effective, Researched-Based Methods and Strategies

9a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.

As we began the re-envisioning process of updating our Technology Plan, we reviewed the research pieces that were central to four original district 2008-2011 technology plans. We discovered that some of sources still pertained to our new 2011-2014 plan. These pertinent documents are included in the table below.

We also recognized that our technology plan must model the world in which our students must achieve life long success. This world is in a constant state of change and therefore requires a plan which supports students in being digitally literate, inventive thinkers, effective communicators, and highly productive. Our plan reflects research which considers Curriculum and Instruction, Professional Development, Standards, and Skills Assessment from a 21st Century Skill development lens.

The research pieces that we have added to this updated plan focus on emerging technologies, 21st Century Skill development, new approaches and consideration for effective professional development in the area of technology integration, and finally the importance of defining and collecting "meaningful" data to inform student progress throughout the learning process. It has been categorized under these four focus areas: 1. District Education Technology Vision Building, 2. Teachers' Use of Technology, 3. Impact of Technology on Instruction and Student Achievement, and 4. Data Driven Decision Making.

District Technology Vision Building

Atkins, D., Bennett, J., Brown, J., Chopra, A. Dede, C., Fishman, B.,...Williams, B. (2010). Transforming American Education: Learning Powered by Technology. Office of Educational Technology: U.S. Department of Education . Retrieved from http://www.ed.gov/sites/default/files/ NETP-2010-final-report.pdf

"The NETP presents a model of 21st century learning powered by technology, with goals and recommendations in five essential areas: learning, assessment, teaching, infrastructure, and productivity.... The challenging and rapidly changing demands of our global economy tell us what people need to know and who needs to learn. Advances in learning sciences show us how people learn. Technology makes it possible for us to act on this knowledge and understanding."

Carroll, T. (2007). "Teaching for the Future." Building a 21st Century U.S. Education System . (Wehling, B. & Schneider, C. Eds. Washington, DC: National Commision on Teaching and America's Future. Retrived from http://www.nctaf.org/resources/research_and_reports/ctaf_research_reports/documents/Bldg21stCenturyUSEducationSystem_final.pdf

This chapter identifies the way in which we need to prepare and support 21st Century Teachers. " Changes in teacher and student demographics are converging with expanding learning opportunities and the demands of a knowledge based global economy. In response, a new system of public education will emerge that empowers teachers and students to collaboratively create the knowledge and skills they need for successful participation in a "flat world".

The flat world rewards continuous learning, sustained teamwork, and flexible adaptation to change. Today's students need schools that are organized around these principles. They need teachers who know how to

create a learning culture that fosters the communication and innovative problem solving abilities they will use throughout their careers."

Johnson, L., Levine, A., Smith, R., & Stone, S. (2010). The 2010 Horizon Repor t. Austin, Texas: The New Media Consortium. Retrieved from http://www.nmc.org/pdf/2010-Horizon-Report.pdf

The Horizon Reports are an ongoing research effort established in 2002 that identifies and describes emerging technologies likely to have a large impact on teaching, learning, research, or creative expression within education around the globe. This volume of the 2010 Horizon Report: K-12 Edition, examines emerging technologies for their potential impact on and use in teaching, learning, and creative expression within the environment of pre-college education. Cloud computing and collaborative learning environments are set to take hold in K-12 schools in the very near future, with mobile devices, game-based learning, and other education technologies to follow suit in the next few years, according to the 2010 Horizon Report'sK-12 Edition.

Lemke, C., Coughlin, E., Thadani, V., & Martin, C., (2003) enGauge 21st Century Skills Literacy in the Digital Age . Los Angeles: Metiri Group. Retrived from http://www.metiri.com/features.html

"The enGauge 21st Century Skills [Digital Age Literacy, Inventive Thinking, Effective Communication, High Productivity] should be considered within the context of rigorous academic standards. They are the bridge to authentic, intellectually challenging work by students."

Teachers' Use of Technology

Harris, J., Koehler, M., & Mishra, P., (2009). Teachers' Technological Pedagogical Content Knowledge and Learning Activity Types: Curriculum-based Technology Integration Reframed . Eugene: ISTE (International Society for Technology in Education). Retrieved from http://activitytypes.wmwikis.net/file/view/HarrisMishraKoehler-JRTESumm09.pdf%20

"In this paper we critically analyze extant approaches to technology integration in teaching, arguing that many current methods are technocentric, often omitting sufficient consideration of the dynamic and complex relationships among content, technology, pedagogy, and context. We recommend using the technology, pedagogy, and content knowledge (TPACK) framework as a way to think about effective technology integration, recognizing technology, pedagogy, content and context as interdependent aspects of teachers' knowledge necessary to teach content-based curricula effectively with educational technologies.

We offer TPACK-based "activity types," rooted in previous research about content-specific activity structures, as an alternative to existing professional development approaches and explain how this new way of thinking may authentically and successfully assist teachers' and teacher educators' technology integration efforts."

Pitler, P., Hubbell, E., Kuhn, M., & Malenoski, K., (2007). Using Technology with Classroom Instruction that Works . Denver: Mid-continent Research for Education and Learning (McREL).

Summary from McREL, "This book suggests ways in which the research-based strategies in Classroom Instruction That Works can be used with educational technologies, such as word processing and spreadsheet applications, multimedia, data collection tools, communication software, and the Internet."

Impact of Technology on Instruction and Student Achievement

Lemke, C., & Coughlin, E., (2009). Technology in Schools: What the Research Says A 2009 Update . Culver City: Cisco Systems. Retrieved from http://www.metiri.com/PDFs/2009_technology_ in_schools_what_research__says.pdf

"This report is organized to examine the research on 14 types or configurations of technologies (TECHtypes) used in education...each TECHtype was grouped under (1) Engagement devices, (2) Gaming, (3) Handheld technologies, or (4) Instructional technologies.

Each section provides details about the specific TECHtype, including summaries of the rigor and outcomes of recent studies. The studies included in the report are not meant to be comprehensive, but rather indicative of the results possible when technology is coupled with appropriate pedagogy and implemented with fidelity."

Nevens, M. Rodrigues, W., & Bryant, A., (2001). The CEO Forum School Technology and Readiness Report Key Buiding Blocks for Student Achievement in the 21st Century: Assessment Alignment Accountability Access Analysis . Washington: CEO Forum on Education & Technology. Retrieved from http://www.ceoforum.org/downloads/report4.pdf.

The CEO forum is a synthesis of case studies seeking the answer to how and why technology creates a positive impact of achievement. Based upon their investigation, they purposed that four elements are key to ensuring this positive impact: 1. Alignment with standards and objectives, 2. Assessment that accurately and completely reflects a full range of academic performance skills, 3. Accountability for schools and districts for continuous evaluation and improvement, and 4. equality access regardless of geography, culture, and socio-econmics.

Sandholtz, J.H, Ringstaff, C. & Dwyer , D.C. (1997). Teaching with Technology: Creating Student Centered Classrooms . New York: Teachers College Press.

"...student engagement remained highest when technology use was integrated in the larger curriculum framework, rather than being an 'add-on' to an already full curriculum."

Data Driven Decision Making

Hamilton, L., Halverson, R., Jackson, S., Mandinach, E., Supovitz, J., & Wayman, J. (2009). Using Student Achievement Data to Support Instructional Decision Making . (NCEE 2009-4067). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides/.

"This guide offers five recommendations to help educators effectively use data to monitor students' academic progress and evaluate instructional practices. The guide recommends that schools set a clear vision for schoolwide data use, develop a data-driven culture, and make data part of an ongoing cycle of instructional improvement. The guide also recommends teaching students how to use their own data to set learning goals. "

Newmann, F., King, M., & Carmichael, D., (2007) Authentic Instruction and Assessment, Common Standards for Rigor and Relevance in Teaching Academic Subjects . Des Moines: State of Iowa Department of Education. Retrieved from http://www.smallschoolsproject.org/PDFS/meetings/auth_instr_assess.pdf

"This report is for teachers and administrators considering whether to invest in sustained professional development on instruction and assessment that emphasizes the goal of student production of authentic intellectual work (AIW)."

9b. Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.

TwinRiversUSD is determined to implement the "latest" tech tools if and only if we are confident through an internal process or established research evidence that our school communities will truly benefit from the investment. When using our internal process we do the following prior to implementation:

- establish measurement criteria for the “tool”
- do an in-depth search of all currently available examples of the “tool” (for example, in choosing School Loop for our CMS provider we compared and contrasted over 30 CMS providers using the agreed upon measurement criteria)
- narrow down to a top 5 through a collaborative process involving appropriate stakeholders
- invite feedback from a wider audience of appropriate stakeholders
- run pilots if applicable

Online learning while currently in its infancy in terms of usage here in Twin Rivers, will continue to play an expanding roll over the course of the next 3 years. Material at times cannot be covered in school thus we understand the imperative of on-demand learning opportunities for both our student and adult communities. Learning anytime and anywhere is essential to life-long learning and technology allows for that bridge to be built allowing for formal and informal learning opportunities. For students our Charge Program is using it after school to support students in credit recovery and we will be offering a summer school credit recovery program as well. This in itself is not an end all solution. Early results are indicating that while it is working for some, others are not benefiting. Current course curriculum is in some places as stiff and boring as a textbook and thus, students who struggle to comprehend material from a textbook are having the same challenges in the online courses. In particular, our special needs students including English Language Learners continue to struggle. We are looking to improve their experience by creating more interactive online curriculum experiences that may for example include collaborative environments that are enhanced by social and participatory approaches such as wikis and blogs. Social media content created by teachers and learners can enrich online learning.

We also anticipate the expanding usage of digital textbooks for all students. This digital transition will necessitate pedagogical changes. We have done much research on the way people learn. For example, we know people learn more when learning is meaningful, deep and connected to their world. We know people learn more when we connect new learning to prior knowledge. We know people learn more when they are engaged and having fun. We know people learn more if we can provide multiple and flexible means of engagement to tap in to divers learners’ interests, challenge them appropriately, and motivate them to learn. And 21st century learning has to be connected to the academics and the common core standards.

It is our vision to use the research on how people learn and infuse technological innovations and 21st century skills for all of our learning community.

Appendix C - Criteria for EETT Technology Plans
(Completed Appendix C is REQUIRED in a technology plan)

In order to be approved, a technology plan needs to "Adequately Addressed" each of the following criteria:

- For corresponding EETT Requirements, see the EETT Technology Plan Requirements (Appendix D).
- Include this form (Appendix C) with "Page in District Plan" completed at the end of your technology plan.

1. PLAN DURATION CRITERION	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
The plan should guide the district's use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)	2	The technology plan describes the districts use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded (7/1/xx to 6/30/xx).	The plan is less than three years or more than five years in length. Plan duration is 2008-11.
2. STAKEHOLDERS CRITERION Corresponding EETT Requirement(s): 7 and 11 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	3	The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included.	Little evidence is included that shows that the district actively sought participation from a variety of stakeholders.
3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**

a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.	5	The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology.
b. Description of the district's current use of hardware and software to support teaching and learning.	6	The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
c. Summary of the district's curricular goals that are supported by this tech plan.	8	The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.	9	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.	19	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills.	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.

f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism	22	The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading.	The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals.
g. List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.	24	The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety.	The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about internet safety.
h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.	25	The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan's goals.	The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.	26	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.

j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.	32	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	37	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.
4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.	38	The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies.	Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.
b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan.	40	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d - 3j) of the plan.	The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component.

c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	45	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA Corresponding EETT Requirement(s): 6 and 12 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan.	46	The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.	The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.
b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.	48	The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district's Curriculum and Professional Development components.	The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components.

c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.	49	The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.	The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.
d. Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities.	51	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
6. FUNDING AND BUDGET COMPONENT CRITERIA Corresponding EETT Requirement(s): 7 & 13, (Appendix D)	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
a. List established and potential funding sources.	52	The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified or are so general as to be useless.
b. Estimate annual implementation costs for the term of the plan.	53	Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
c. Describe the district's replacement policy for obsolete equipment.	54	Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.	54	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.

7. MONITORING AND EVALUATION COMPONENT CRITERIA Corresponding EETT Requirement(s): 11 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.	55	The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
b. Schedule for evaluating the effect of plan implementation.	55	Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.
c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.	56	The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.
8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION Corresponding EETT Requirement(s): 11 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**

If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)	57	The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.	There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.
9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA Corresponding EETT Requirement(s): 4 and 9 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.	58	The plan describes the relevant research behind the plan's design for strategies and/or methods selected.	The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.
b. Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.	61	The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources).	There is no plan to use technology to extend or supplement the district's curriculum offerings.

Appendix J - Technology Plan Contact Information (Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: 34 - 76505

School Code (Direct-funded charters only):

LEA Name: Twin Rivers Unified School District

*Salutation: Mr.

*First Name: Steve

*Last Name: Scott

*Job Title: Director of Instructional Technology

*Address: 5115 Dudley Blvd.

*City: North Highlands

*Zip Code: 95660

*Telephone: 916-566-1600 Ext: 55570

Fax: (916) 570-0268

*E-mail: steve.scott@twinriversusd.org

Please provide backup contact information.

1st Backup Name: Gene Smith

E-mail: gene.smith@twinriversusd.org

2nd Backup Name:

E-mail:

* Required information in the ETPRS