Comprehensive

McFarland Unified

July 1, 2014 - June 30, 2017

08/18/2015 (revised 08/18/2015)

1. PLAN BACKGROUND CRITERIA: The plan should guide the LEA's use of education technology for the next three years.

1a. Provide a brief overview of the LEA, its location and demographics and/or share a link to the LEA's website.

McFarland, California is a small farming community located in California's central valley approximately 30 miles north of Bakersfield. The population was 12,393 at the 2011 census. The city's 2.1 square miles lies in a rural area surrounded by dairies, almond orchards, vineyards and various other crops.

As of the census of 2011, there were 12,393 people and 2,699 households residing in the city. The racial makeup of the city was 42.8% White, 1.9% Black or African American, 1.3% Native American, 0.7% Asian, and 3.5% from two or more races. 91.5% of the population were Hispanic or Latino of any race. Out of a population of 12,393 35.2% are under 18 and 10.6% under 5 years of age. Households that speak a language other than English at home is 84.4%. The average household size was 4.25. The median income for a household in the city was $35,615. The per capita income for the city was $9,285. About 33.8% of the population were below the poverty line.

The McFarland Unified School District administers public instruction for grades PK-12, and adult in the city and unincorporated areas surrounding the city. As of July 2013, the total District budget is approximately $30 million.

The District operates 6 K-12 schools including 2 elementary schools, a middle school, a comprehensive high school, a continuation high school, and an Independent Study high school. The District also operates 2 Preschools and an adult school. With the current level of students in the district, the district has purchased property to build an additional elementary school to reduce crowding at the existing elementary schools. The new elementary school is scheduled to open Fall of 2016 for the 2016-2017 school year. Funding for these projects has been identified from various sources including local bonds, developer fees and state matching funds.

According to 2012 CBEDS data, the District's K-12 student population is 3306. The District employs 177 classroom teachers and 62 classified staff members. The largest student ethnic group is Hispanic (97.9%) of which approximately half are considered English learners. The DataQuest 2012 Base API Report for demographic characteristics shows the percentage of District students receiving free and reduced lunch is 98% and the district provides free meals for all students based on Provision 2. Special education students comprise 7.7% of total enrollment. In 2012-2013, the K-12 teachers had served an average of 8.4 years in the District, 28% were in their first year of teaching; 2% in their second year of teaching; and 100% are deemed highly qualified. 2012 CBEDS indicates 25% of the McFarland Unified staff hold a master's or higher degree.

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1b. Describe how a variety of stakeholders from within the LEA and the community-at-large participated in the planning process.

The McFarland Unified School District 2014-2017 Educational Technology Plan aligns with all applicable aspects of the Superintendent's guiding principles, strategic goals, and system-wide initiatives. This plan is in a way a guideline for the future as we enter an important transition from Standards teaching into Common Core Instruction and from California Standardized testing into Smarter Balanced Testing. This Education Technology Plan further defines what and how technologies and strategies are to be used in conjunction with the District's current educational programs and during the transition and adoption of Common Core and Smarter Balanced Testing.

This plan will assist District staff in identifying strategies to help schools provide every

student with the most appropriate contemporary learning technology resources and open opportunities in which alignment with the overall District goals for academic achievement and other key District initiatives are the priority. The strength of the set of goalsstated in this plan will support school board, District, and site based leadership in making timely, informed, and student-centered decisions. All expected outcomes of the plan will underscore the major benefits of technology use for students, parents, teachers, and administrators within the McFarland Unified School District.

During the planning process surveys that reached all staff, administration, students, parents and community in general were conducted, Automated phone calls were sent out and participation at various parent and community meetings like open houses, ELAC, DELAC, Migrant Education meetings direct input from administration and staff was solicited through attendance during staff meetings and through a series of online surveys. The planning team was comprised of those individuals that attended meetings sent out by an open invitation. Surveys were distributed to all teachers, administrators and staff through our student information system "Infinite Campus". Students at the High school also have accounts in Infinite Campus and it was distributed to them. The survey was also distributed to parents through the parent portal of Infinite Campus. For Elementary and Middle School students a paper survey was given to get feedback and then all results were tallied and charts showing results were integrated to this plan and are shown in different section of the plan as they apply to the sections definitions..

A technology committee was commissioned to review the data acquired during the planning and development phase of this 2014-2017 McFarland Unified School District's technology Plan; Victor M. Hopper; Superintendent, Ty Bryson; Assistant Superintendent of Curriculum & Instruction, Ambelina Garcia-Duran; Assistant Superintendent of Business Services and Operations, David Lopez; Director of Technology and Information Systems, Willliam Stoutingburgh and Bob Phillips; Computer Technicians, Teachers on Special Assignment, Certificated and Classified Staff; student and community participation was achieved based on all stake holders' priority which is student wellbeing, and by participating in ongoing meetings like Migrant, Family Resource Center activities, Head Start, Parent and Community committee meetings, Open houses, ELAC and DELAC, etc.

The Board of trustees and the school district administration would like to extend public recognition and a special note of appreciation to all those who contributed to the integration and development of this Plan.

1c. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.

Our technology plan is designed to clearly present goals and strategies for integrating technology into student education; which can no longer be viewed as one more item to think about, but as an enhancing tool that is applied into all areas of the students' educational experience will enrich the experience and also become a lifelong tool.

MUSD's goal is to improve student learning in all core areas (especially English/Language Arts and Math.) The learning objectives presented in this plan are based on the California Common Core Standards.

The following relevant research was examined and integrated into our plan. The research we selected emphasizes best practices for technology integration in the curriculum, Analysis of Total Cost of Ownership; we also considered all important factors that contribute to successful staff development.

McFarland Unified School District's philosophy is that all available technologies and the use of these technologies should be integrated into the curriculum at all levels in order to improve student achievement. Technology should not be a separate content taught for its own sake. We have reached a point in modern society were technology and technologies research methodology demonstrates that; Technology improves student

performance when the application of it directly supports all curriculum objectives being assessed. While our district does offer some basic technology courses, technology integration will not be taught in isolation. MUSD concurs with the ACOT study that states that student engagement remains highest when technology use is integrated into the larger curricular framework, rather than being an “add-on” to an already full curriculum (Sandholtz et al, 1997).

This and other Research suggests that when technology is integrated into the larger instructional framework, students will not only learn how to use the technology equipment and software but will also gain content knowledge (Silverstein et al.,2000). Moreover, using technology within the curriculum framework can enhance important skills that will be valued in the workplace, such as locating and accessing information, organizing and displaying data, and contribute to enhance persuasive arguments (Sandoholtz et al.,1997; “Critical Issue,” 1999).

The Learning Return On Our Educational Technology Investment: A Review of Findings from Research, WestED (Ringstaff and Kelley, June 2002) is an extensive report that examines many studies related to educational technology and school reform. Several key factors are identified in this report and they are defined as crucial elements for successfully using technology:

- Technology is best used as one component in a broad-based reform effort.
- Teachers must be adequately trained to use technology.
- Teachers may need to change their beliefs about teaching and learning.
- Technological resources must be sufficient and accessible.
- Effective technology use requires long-term planning and support.
- Technology should be integrated into the instructional framework.

A variety of instructional strategies and technologies will be used to assist teachers and students in acquiring information and technology literacy skills in all content areas, during the length of this technology plan and beyond as new technologies and teaching strategies are discovered, or developed.

Staff development will continue to be the bond between the use of technology as a powerful teaching and learning tool that engages students while addressing content standards within the curricular, instructional framework and the school district’s adopted curriculum.

One approach to effective staff development in technology integration is TPACK as described by Mishra and Koehler (2006). The Technological Pedagogical Content Knowledge (TPACK) framework builds on Shulman’s (1987, 1986) idea of PCK, It attempts to describe some of the essential qualities of knowledge required by teachers for technology integration in their teaching. The TPACK framework is a complex interplay of three primary forms of knowledge: Content (CK), Pedagogy (PK), and Technology (TK); Now, a teacher capable of negotiating these relationships will develop a form of expertise different from, and greater than, the knowledge of a disciplinary expert (say a mathematician or a historian), a technology expert (a computer scientist) and a pedagogical expert (an experienced educator). http://www.tpack.org/

Professional development activities in MUSD will entail looking at instructional activity types used by teachers to deliver content (discussions, read alouds, literature circles, etc) to suggest technology alternatives. In this way, technology is used pedagogically as an appropriate response to content needs. For an example see “Social Studies Learning Activity Types”, Library of Congress, Teaching with Primary Sources Newsletter (http://www.loc.gov/teachers/tps/newsletter/research.html).

TPACK research suggests methods of integration, while the Partnership for 21st Century Skills(P21) suggest the motivation behind it: global competition, international innovation, and greater demands in the workplace ("21st Century Professional Development." (2007). Partnership for 21st Century Skills. 4 Sep 2008 <http://www.21stcenturyskills.org/documents

/21st_century_skills_professional_development.pdf>. (21st Century Skills Assessment, 2007)).

The longterm strategic planning process ”Reshaping our Future” now underway in MUSD has identified several of the themes P21 advocates, including life and career skills, information literacy skills, and innovation. These themes will be used to guide the districts curricula for years to come.The “Framework for 21st century learning”, is represented in a form of a rainbowin which the top of the rainbow represents student expected outcomes and the bottom represents the support system required to accomplish the expected outcomes.

2. CURRICULUM COMPONENT CRITERIA: The Plan must establish clear goals and realistic strategy for using telecommunications and information technology to improve education services.

2a. Describe teachers' current access to instructional technology and current use of digital tools.

The McFarland Unified School District has aggressively implemented technology in every classroom. All elementary classrooms are equipped with Smart Technologies Boards, ELMO digital cameras, video distribution system surround sound systems, and computers both for students and teachers in every classroom. Our present student/computer ratio is 3 to 1 at elementary schools.

Our only middle school is equipped similarly to the elementary schools; however instead of “Smart Technologies” Brand Boards they are using “Promethean” brand Boards.

Our only traditional High School; is also equipped similarly to the elementary Schools; with Smart Technologies systems. However, only math and science courses have digital cameras.

The McFarland Learning Center has video projectors in every classroom, and Smart Technologies Boards in one fourth of the classrooms.

There are a few classrooms that have student response systems, each teacher has an account to electronically grade tests as well as assigning them to be taken online and also a local paper test scanning system is available at every school site. Students have access to Internet in every classroom through computers and wirelessly the district has umbrella coverage for every campus. The wireless infrastructure consists of one access point for every two or three classrooms. This infrastructure is sufficient for using a laptop cart in a classroom but not sufficient for a 1:1 deployment of wireless devices.

There is one library per school site with access to at least 8 computers and at most 14 units connected to the Internet. McFarland High School has four 32 unit computer labs, McFarland Middle School has one 30 unit computer lab, one 30 unit Lap Top Cart, 30 iPads Assigned to classrooms and one Robotics Lab composed of 20 netbooks. The McFarland Learning Center has two 20 unit computer labs.

One elementary school has a 30 unit computer lab and a 30 unit Lap Top Cart, a second elementary school has four 30 unit lap top carts. Both elementary schools have 40 iPads each available for students.

All of these technologies are available to all teachers and. Additionally computers are available both at the county library and the learning center for after school usage offering equal access opportunities for all students.

Internet is available in the community from several sources including DSL and Cable. However, approximately 30% of families do not have access to Internet services at home.

2b. Describe students' current access to instructional technology and current use of digital tools. Include a description about the LEA policy, practices, and/or replacement policy that ensures equitable technology access for all students.

All elementary schools have Internet access and a minimum of three on-line computers in each classroom. All schools have computer labs with Internet ready multimedia computers either permanent or portable. All are connected to area networks. All staff and students and staff have access in the classroom and students use the computers in the labs weekly. All classes utilize the portable labs on a rotating basis and may sign up for additional time slots whenever possible.

Students at our two elementary sites have computer access for special projects. The ratio of student to computers in the school district is 3:1. Teachers and students have access to the computers on a drop in basis before and after school, and teachers may

sign up to use the portable lab with their class daily. Teachers use computers for record-keeping, planning, and the delivery of instruction and have at least three workstations in their classrooms that allow for the instant use of email, Infinite Campus Student Information System, word processing software, and Powerpoint tools. Each classroom is equipped with a computer, document camera an lcd projector and an interactive whiteboard.

At McFarland Middle School; All teachers and students have access to an online computer in every classroom. Student use of computers includes delivery of presentations and research. Teachers use computers for record-keeping, planning, and the delivery of instruction and have workstations in their
classrooms that allow for the instant use of email, Infinite Campus Student Information System, word processing software, and PowerPoint tools. An additional portable lab for classroom use has also been provided on campus. A third portable lab is available for check out from the office of the reading coach; therefore the middle school was able to be compliant with SBAC testing for Common Core.
Students have access to 1 fully functioning networked computer lab before & after school, and by appointment with reading literacy teacher. The computer lab is open to all students three days a week. However students may use the lab provided computer stations are available and a supervisor is there. A networked Laptop-lab is available to students participating in special School Programs. The lab is also available to students during the regular school day by appointment.

Ten networked computer stations are available to all students throughout the school day in the library. Students have access to a at least 4 networked computers in each of their classrooms and/or intervention classes. Approximately one-third of 7th grade students and one-third of 8th grade students are scheduled into Computer Lab during the school day hours where students have access to word processing software, desktop publishing software and presentation software. An additional lab is being proposed to aide in the middle school being ready for state testing, SBAC.

McFarland High School considering the increased emphasis on computer literacy for Common Core, students create technology-based projects in multiple curricular areas. The school provides access to technology for all students and teachers. For students, access is provided through classes (both required and elective) and a lab in the library (15 computers.)

The site has 4 large labs (30 to 40 computers) . Of those, 100% are networked and provide internet access. Each teacher on campus has at least 4 networked computers in his/her classroom. Most classrooms have a document camera, LCD projector and computer for instructional purposes. At least 90% sof the classrooms have Smart Boards currently in use. The remaining classrooms are not suitable for Smart boards such as a welding shop.

Daily, all teachers use Infinite Campus Student Information System, to handle administrative tasks such as taking roll, entering grades, submitting student reports and printing
activity letters. Parents and students are able to communicate with teachers via email; addresses are published through Infinite Campus Student Information System. Teachers and administrators use Outlook Web access to communicate with each other via email. Some teachers also have tools that assist with the delivery of instruction which include Smart Notebook, , PowerPoint, Lexia, California Streaming . The library lab is open daily for one hour after the school day ends.

2c. Describe goals and an implementation plan, with annual activities, for using technology to improve teaching and learning. Describe how these goals align to the LEA's curricular goals that are supported by other plans. Describe how the LEA's budget/Local Control and Accountability Plan (LCAP) supports these goals, and whether future funding proposals or partnerships may be needed for successful implementation.

The analysis of several research studies including the Apple Classrooms of tomorrow-Today (2008), the Wenglinsky study of 2002 indicate that the important factor which determines how technology impacts learning and student engagement is the manner in which the technology is integrated into the teaching and learning process. When planning for the integration of technology, the desired outcomes for learning should determine the tool. Research also indicates that students learn best when they are producers, not just users of technology. Thus, rather than serving as a repository of information, teachers must be technologically adept and designers of work that is of high quality, engaging, has real world application, incorporates technologies and digital resources, and requires students think critically and produce meaningful products for evaluation.

Twenty-first Century students must be prepared with the general skills to change jobs within the same industry and to move to an entirely different industry many times during their working lives.

Educators must expose students to a broad range of technologies and guide them to analyze, evaluate, and communicate what they have learned and experienced. Educators must also increase student use of critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources.

The timeline for the two main objectives is only defined by those new students or teachers in the district; other than that our training and instructional programs are ongoing and permanent. Administrator classroom observations of teacher use, and surveys will be the indicators that will determine teacher proficiency and the MUSD takes a proactive stand for all necessary staff trainings, either District/School mandated, or teacher requested.

GOAL 1: Increase academic achievement for all students.

OBJECTIVES

1. Increase the number of students using technology to plan, draft, proofread, revise, and/or publish written text by increasing the number of mobile technologies (e.g. tablet pcs, laptops, ereaders, etc.)
2. Improve student performance and computer access by using student response devices in every core subject classroom.
3. Improve student performance in the areas of English, reading, and mathematics on district common assessments
4. Increase integration of technology for planning, instruction, and assessment by increasing classroom access to technology and digital resources.
5. Increase use of technology for individualized learning and/or tutoring by developing technology rich environments that enable all students to manage their own learning and assess their own academic progress.
6. Increase reading achievement through the use of technology with developmentally appropriate literature.
7. Insure all students are technologically literate by 8th grade through participation in integrating technology courses.
8. Enhance the education of all students with disabilities through the use of appropriate technologies.
9. Improve student success of English Language Learners using digital tools and resources.

Technology Integration in the classroom usually occurs in one of three ways. Technology integration can be used by the teacher to enhance instruction; as a resource that is not directly linked to curriculum standards; or as a means to independently empower students to direct their own learning.

Educator proficiency through professional development opportunities is essential in order to encourage and support student success. The more technologically adept and proficient teachers are, the more likely they are to successfully incorporate the use of technology and digital resources in the teaching and learning process. Therefore, meaningful training should be offered to teachers with follow up opportunities and

sustained support.

Goal 2: Improve student performance by building the capacity of teachers, administrators, and staff through high quality professional development opportunities.

OBJECTIVES

1. Insure proficiency and daily use of Smart or Promethean interactive whiteboard systems.
2. Insure novice teachers and new teachers to the district have the ability to use district technologies to successfully start school.
3. Improve teacher capacity by offering a variety of hands on professional development opportunities.
4. Insure access to and effective use of district digital resources.
4. Increase awareness of current and emerging educational technology trends and issues.
6. Insure technology proficiency of all teachers.

The increase in high stakes testing and other accountability standards along with the decrease in funding for many programs has caused school district administrators throughout the United States to face the challenge of doing more with much less. The enormous cut to educational programs has school district administrators looking closely at the budget in order to prioritize initiatives.

Many school principals are also looking to educational technologies such as cloud computing, electronic book readers, and "Bring Your Own Device" initiatives to reduce the cost of equipment replacement and to help fill in the gaps between funding and meeting the demands of new and growing accountability standards while continuing to prepare students who are equipped with 21st century skills for college, the workforce, or the military. (Information obtained and adapted from Educational Technology and High-Stakes Testing by T. Daniel, 2012; Bring your own device catching on in schools and Amid economic uncertainty, ed-tech leaders do more with less by L. Devaney, 2011; and Duncan: Ed tech can help cut costs by J. Zwang, 2010).

Technology has become one of the most critical resources due to its ability to facilitate timely and accurate communication of information and data. The budgetary decision-making process must include determining how to achieve the greatest return on investment and include all stakeholders in prioritizing needs.

MUSD administration believes that communication is the key to maintaining effective relationships with everyone who has a stake in education.

Goal 3: To create and maintain effective relationships with the educational community locally, state-wide, nationally, and globally.

OBJECTIVES

1. Provide and maintain current and accurate student data.
2. Assure accurate and timely submission of data to state officials using CALPADS state reporting tool.
3. Insure proficiency of users by providing ongoing training and support for Infinite Campus student information system software and CALPADS state reporting tool.
4. Create solid international relationships that in turn will enhance our students' view of the world and will help them find their place in it.
5. Update the district's website in order to better communicate to local, state, national, and global community.
6. Communicate district/school information using district, school and teacher websites.
7. Enable parents to monitor student progress using a secure connection to the Parent Portal component of the Infinite Campus Student Information System.
8. Improve communication with parents using SchoolMessenger automated notification system and Twitter feeds on the district's web site.
9. Insure electronic record keeping for Special Education students' data using the Special Education Student data component in Infinite Campus and SIRAS;

the county's Special Education data management program.

10. Improve communication and efficiency for district and school administrators.

2d. Describe goals and an implementation plan, with annual activities, for how and when students will acquire the technology skills and information literacy skills needed for college and career readiness.

As described in prior sections, curriculum and professional development objectives and their impact on student learning will be evaluated through student achievement data. This includes (CAHSEE results, Smarter Balance Assessment results, High School Graduation portfolios, local assessments determining mastery of content standards, student attendance, college entrance rates, and student access to computer labs or portable units, surveys (from staff, parents and students) and artifacts of the implementation of technology produced annually (student products and teacher lessons), also budget expenditures to support program goals.

- The District will also work with the McFarland Learning Center school in charge of adult education to support the learning and literacy needs of the community with access to and instruction in technology:
- Provide facilities on District campuses so that on-line courses, adult education and CBET classes may be offered locally.
- Allow access to the District's network and access to Internet services in community facilities where educational activities and services take place.
- Provide technical assistance so that technology may be integrated into their curriculum.
- Collaboratively pursue adult literacy funding sources, particularly for courses which differentiate various levels of English Language Development.
- Offering technology professional development courses to adults seeking retraining and job opportunities.
- Continue to articulate with MJC Workforce Training Center to offer on-line courses throughout the school year and use non-traditional semester times that best fit schedules of commuters.

Through this collaborative effort, we hope to better provide services to our students, our parents and the general community which will in turn, expand opportunities for the communities around the city of McFarland.

The McFarland Unified School District, in its commitment to academic success for all students, acknowledges the ongoing need to provide all students access to computers and related technologies in order to support the curricular goals driven by student needs. Further, it embraces research based strategies to drive curricular planning and goals that address a wide variety of learners.

The District Technology Plan addresses the need to improve literacy skills through instruction in a balanced reading program including computer programs that assist in skill development, opportunities to use on-line resources for reading, and appropriate evaluation and assessment tools which drive reading instruction. It's first goal stating Technology will be used to support the district's academic content standards to improve learning in core curricular areas is founded on research stating that many districts started acquiring additional Online resources. These systems must be operable or else they can become a barrier to Data driven decision-making. Additionally, lack of consistent training, which we have addressed in the plan, can lead to a neutral impact on instructional impact.

The District's curricular goals for enhancing student learning and addressing State Common Core content standards in all curricular areas through the use of multimedia presentational tools is implemented through a series of project based learning experiences. This model has been embraced by the District because of its positive impact on teaching and learning, and its ability to be woven throughout the curriculum and grade levels. Moreover, project based learning and the use of multi-media tools can enhance skill levels and academic needs for all students, including those learning English, those in special education, regular education students and those placed in more accelerated AP courses.

The curriculum builds student's skills by first requiring upper elementary students to use electronic and internet sources for research to produce a written classroom project. Additionally, they will present their report to the class using multi-media software. Later, it is expected that all middle school students reach mastery of reading, and present cross-curricular, thematic projects using on-line research tools and presentation software.

High school students' complete project based learning assignments, using word processing/publishing software, and regularly uses Internet search strategies, presentation software, spreadsheet programs, and communication through E-mail to demonstrate mastery of common core Standards. Further, we envision that all graduating seniors must complete and present to the high school body a Senior portfolio using computer foundation skills and software (word processing, database, spread sheets, and presentation software), as all students have equal opportunities to use technologies to enhance learning regardless of primary language, learning styles, differences, or capabilities, they will be able to practice reading and information literacy skills, access online information, and utilize problem solving, decision making and critical thinking skills. Further, as they continue to use technology in the development of multi-media projects which demonstrate their ability to research and present information in core curricular areas, as they investigate career opportunities and ultimately, and as they complete their Senior Exit Portfolios, they will practice and demonstrate that have developed the skills to use technology to enhance their learning, and most importantly, meet district and common Core Standards.

These activities are rooted in research that notes that, "Students have expressed an interest in using a variety of personal technology tools as well as a variety of applications, including more advanced computing, more use of mobile devices, and creativity enabling technologies such as video editing software and devices. Students also voiced concern that they were being left behind in an age of technological innovation in which their schools were unable to keep pace" (What Students think about Technology in School,2010, www.myctap.org/index.php/administrators-and-data/edtech-research-reviews/169.what).

Provisions are made within the District for distance learning for students who need an alternative pathway or learning modality. Students can do credit recovery remotely depending on need. We provide this model based on the fact that "computer based modeling was found to be effective in developing academic skills and higher level thinking skills, as well as being engaging....Virtual learning was found to be as effective as traditional face to face classroom learning " (Technology in Schools: What the Research Says, 2010, www.myctap.org/index.php/administrators-and-data/edtech-research-reviews /191-tech).

Relating to Staff Development Goals:

MUSD's professional development needs, indicate that staff is at intermediate skill levels with regards to Internet use, publishing and use of presentational software tools. There is a critical need for credentialed staff to have extensive professional development opportunities to increase their skills in the overall use of instructional technologies, particularly to support District curricular and achievement goals. For administrators, most demonstrated needs in use of databases and presentational software to best support data driven instruction, communication and school improvement planning.

The District's first goal is to develop and implement district-funded staff development program to ensure all personnel effectively and efficiently use technology to support standards-based instruction and to specifically train staff to use appropriate software to support grade level/content area instruction. This goal is based on research that indicates that "lack of professional development for technology use is one of the most serious obstacles to fully integrating technology into the curriculum....Professional development in Technology use should be an integral part of the technology plan or an overall school improvement plan, not just an add-on." (Critical Issue: Providing Professional Development for Effective Technology Use, NCREL, 2000, http://www.ncrel.org /sdrs/areas/issues/methods/technlgy/te1000.htm)

To get the greatest return on the investment the District makes in technology, it is imperative that we train teachers in effective use of technology, beyond how to simply use the equipment at a simple level. Teachers' use of whiteboards has increased as well as their creativity, but care must be taken to ensure that students are engaged in their learning. Teachers must be integrating technology in the delivery of the lessons as well as requiring students to complete projects that involve technology.

Teachers must be taught how to blend the use of interactive technology with face-to-face interaction for maximum benefit (Technology in Schools: What the Research Says, 2010, www.myctap.org/index.php/administrators-and-data/edtech-research-reviews /191-tech).

2e. Describe goals and an implementation plan, with annual activities, to address Internet safety and the appropriate and ethical use of technology, including AB 307 and Children's Internet Protection Act (CIPA) compliance, in the classroom.

"Internet Safety and Ethical Use of Technology" is a very relevant topic in education; education is, really on the front line of this issue as there are challenges on all sides.

Where are we on this issue at McFarland Unified School District?; All district personnel are informed of intellectual property rights, licensing agreements, and legal/ethical standards for sharing of resources with other educational entities as soon as they become technology users. This information is included in the District Network Acceptable Use Policy and is reinforced by memorandum on a regular basis.

The McFarland Unified School District has implemented a Network Acceptable Use Policy designed to meet the goals below:

- Protect the confidentiality of students
- Protect intellectual property rights
- Adhere to licensing agreements
- Address legal/ethical standards for sharing of information with other individuals, or educational entities
- Adhere to the Children's Internet Protection Act ("CIPA")
- Adhere to the Child Online Protection Ac ("COPA")
- Adhere to the Family Educational Rights & Privacy Act ("FERPA")

This life of the Acceptable Use Policy (AUP) is planned to match the length of the life of this Technology Plan; however the AUP may require to be reviewed and updated accordingly to reflect Board Policy changes and changes in local, state or federal law.

In addition our IT department will create a series of presentations that are to be shared continuosly in both (English and Spanish) languages that will talk about cyber bullying, Internet predators, and social network concerns. The presentations are a combination of resources including information from our police resource officer, purchased external products, and school staff developed. Students receive instruction about this in the classroom or lab setting. Parents and community are also invites in for parent education nights as well as District in-services during the regular school year; school site council, ELAC, DELAC and Migrant Education meetings.

The stablished monitoring and filtering system prevents students from accessing dangerous sites and enforce a strict policy of proper use. Staff and students are made aware of the AUP which is also posted on the school district's webpage. Instructions are clear and not following them may be the cause of loss of privileges and/or disciplinary action.

Continuing with the distric's philosophy of transparency; we present the following implementation plan for the next three years:

Implementation Plan McFarland Unified School District's as a unified entity has developed a philosophy related to the implementation of this plan; that is based in the principle of continuos and permanent application of informational units for students and professional development meeting for teachers and staff in general.			
Activity	Person(s) Rsponsible	Monitoring/Evaluation	Evaluation Instrument
Teachers will receive training in information literacy, including copyright, fair use, unlawful downloading, peer-to-peer file	District Technology Commttee	District Technology Commttee	Training agendas and sign in sheets

sharing, and avioding plagarism.			
K-5 students will be exposed to copyright policies and computer etiquette (including opening own files, respecting others' privacy, not copying previously printed work as own) in the computer lab. Common Sense Media curriculum will be used to present lessons.	Teachers assisted by Library Media Clerks at all individual schools	District Technology Commttee	Common Sense Digital Citizenship Assessments and/or other tools as they are available
Students and parents are taught about the district's acceptable use policy and district's established guidelines for internet safety, plagiarism and copyright. Students will understand and parents will agree to use the acceptable use policy	K-12 Teachers	Acceptable Use Policy disseminated via iInternet, posted in the school district's website, and a signed copy collected from all students. teachers and district staff.	Constant review of district's website, posting of fresh and updated Acceptable Use Policy. Samples of Policy.
6-8 grade students will learn about copyright policies when using online resources, evaluate information for bias and accuracy. Students agree to the district's acceptable use policy in the school's technology courses. Students will include citations in research projects.	6-8 Teaching staff	Teachers will review student projects and grade against a stated rubric and pre-defined criteria.	Review of tudent projects, and obtaining teachers' input.
9-12 grade students will respect copyright policies when using online resources, evaluate information for bias and accuracy. They will understand issues surrounding plagiarism. Students agree to the district's acceptable use policy and district's established guidelines for internet safety, plagiarism and copyright.	9-12 Teaching staff	Teacher Lesson Plans, and observation during classroom visits by local administrators	Student projects and administrators' notes related to classroom visits.

3. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA: The Plan must have a professional development strategy to ensure that staff understands how to use these new technologies to improve education services.

3a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.

The use of data collection systems like google drive simplifies the collection and reporting of technology use data assisting the implementation and support of the district technology plan. These surveys along with the staff profile currently being completed by the Human Resources department will serve as the base for growth measurement. The surveys will also provide school administrators and technology coordinators with the tools to guide decision making about the integration of technology into classroom instruction and also evaluating professional development effectiveness.

Perhaps most importantly; teacher technology use profile provides data to determine what and where training is most needed. The need will be determined based on the results of the survey to be taken between January and May of each year.

In terms of basic computer skills, it is expected that at least 75% of all teachers rank their proficiencies as “intermediate.” above half of all teachers know how to troubleshoot basic hardware, software, and printing problems before accessing the appropriate level of support. We expect teachers to be more skilled at using communication tools and office applications than other productivity tools.

Past collected evidence has shown that teachers as a group are the least comfortable with using spreadsheet, database and presentation software. It appears that teachers need more training in this area. On the other hand, we also know that there is a core of teachers who are confident enough of their own skills that they may be able to help their peers.

Teachers at MUSD; we believe, will fall largely also into the uppe intermediate level when using technology in the classroom due to the availability of Smart systems in 98% of the school district’s classrooms. Therefore we expect that high scores are posted in this area which will mean that teachers are using computer applications to enhance their lessons, manage students’ records and communicate through printed media as well as interacting with other staff members using e-mail as instructed by the school district administration.

Training, support, and encouragement are needed to raise proficiency at all grade levels. We believe we can accomplish this by helping teachers, students, administrators, parents and all stake holders to understand and value technology.

Professional development opportunities in technology usage have been gradually increasing over the last five years. Almost 80% of teachers in the MUSD have had professional development participation in areas of educational technology since the last plan started (2010). However, the district has had a very high teacher rotation rate during the last 3 years which

required MUSD to establish a permanent beginner, intermediate, and advanced levels of training at all times. We believe that all teachers at all times need training in integrating technology into the curriculum.

Administrator observations and notes also indicated this as a priority. Based on these observations; an issue of concern arises, teachers know how to use technology above basic level, but they just don’t know how to apply that knowledge and practice to content areas in ways that create meaningful learning experiences for students. Therefore the goal for the next 3 years (2014-2017) is to expand that knowledge to the level where teachers are capable of integrating technology knowledge and resources into the core curriculum.

3b. Goals and an implementation plan, with annual activities, for providing professional development opportunities based on a LEA needs assessment.

For the past five years, staff in the McFarland Unified School District have been involved in a number of professional development experiences using technology including the use of document cameras, interactive whiteboards, educational and presentation software. All staff has been trained in OARS and Infinite Campus. Administrators and front office staff have been trained in the use of Digital programs related to school personnel and facilities management.

MUSD's professional development needs, as identified by Technology Committe surveys: Results from 82% of teacher surveys and 75% administrative surveys indicated proficiency in word processing, and general computer knowledge. Staff is at intermediate skill levels with regards to Internet use, publishing and use of presentational software tools. For administrators, most demonstrated needs in use of databases and presentational software. Professional development is needed to assist teachers in integrating technology into the classroom. Teachers still show a need for professional development in using a variety of electronic media including collaborative tools and technology enhanced curriculum. Teaching staff also show a need in the use of technology to enhance curriculum and in planning lessons integrating technology

Professional development is offered to staff in a variety of ways. Training is available through The technology department both on site and at the County Office and through vendors such as for software and hardware used in the district. There are webinars available to teachers. We have experts in our District that can provide professional development for school site or district staff. Examples include Infinite Campus, OARS, and others. Opportunities for training are offered afterschool, during the summer, and rarely, during the instructional day.

Benchmarks

- Year 1:
  - 80% of staff will be trained in Infinite Campus student information system, classroom technology tools, and online safety and support pieces to support instruction and student learning.
  - 50% of teachers will receive training in information literacy, including copyright, fair use, unlawful downloading, peer-to-peer file sharing, avoiding plagiarism, internet safety and online privacy.
- Year 2:
  - 90% of staff will be trained in Infinite Campus student information system, classroom technology tools, and online safety and support pieces to support instruction and student learning.
  - 75% of teachers will receive training in information literacy, including copyright, fair use, unlawful downloading, peer-to-peer file sharing, avoiding plagiarism, internet safety and online privacy.
- Year 3:
  - 100% of staff will be trained in Infinite Campus student information system, classroom technology tools, and online safety and support pieces to support instruction and student learning.
  - 100% of teachers will receive training in information literacy, including copyright, fair use, unlawful downloading, peer-to-peer file sharing, avoiding plagiarism, internet safety and online privacy.

To monitor the professional development goals and benchmarks noted in this section, we have several structures in place. The first is the Technology committee meetings meeting every semesterto review the objectives in the tech plan and to identify and address site technology professional development goals and needs. The Assistant Superintendent of Curriculum and Instruction, the District's technology teachers, and site tech teachers comprise the Technology Action Team. Surveys about professional development needs and interests will be done annually and reviewed by the Technology committee. The data will be collected and summarized quarterly from the Technology committee with the staff at large. Success will be determined by the rates at which benchmarks are hit. Modifications will be made to plan based on progress toward goals.

To know whether implementation of this plan has made a positive impact on teaching and learning, student academic results that might have been influenced by technology will be collected; anecdotal notes of equipment usage will be collected. There are many indicators of success such as passing score on the High School Exit Examination, number of students successfully meeting grade-level standards, reduced dropout rate, and increased attendance. Those indicators will be influenced if technology is used effectively in the classrooms to encourage student engagement, implement technological support pieces in core curriculum, and create and monitor student assessments that can improve timely instruction and intervention. Feedback from staff will drive the direction, content, and frequency of professional development opportunities.

4. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, SOFTWARE, AND ASSET MANAGEMENT COMPONENT CRITERIA: The Plan must include an assessment of the telecommunication services, hardware, software, asset management, and other services that will be needed to improve education services.

4a. Describe the existing hardware, Internet access, electronic learning resources, technical support, and asset management already in the LEA that will be used to support the Curriculum and Professional Development Components of the plan.

In spite of the budgetary constraints, the McFarland Unified School District continues to make considerable advancements in providing a network infrastructure to connect schools through telecommunication resources. Federal, state, and district funds have been combined to construct a backbone that connects schools and offices in the district to the World Wide Web.

Plans are currently in place to continue to provide a high-speed network with sufficient bandwidth to accommodate users and the growing number of web-based technologies. Upgrades and conversions are continuously occurring as the need for network resources increases. Although budget constraints due to the current economic climate have limited funding sources, the district will continue to provide resources to facilitate the integration of digital resources and technologies into our classrooms.

Because teachers, students, administrators, and support staff have become dependent up on technology to conduct everyday tasks, the McFarland Unified School District is committed to providing its learning community with the necessary technological resources and support personnel to insure student success.

General Goal: All users will have access to a stable, secure, and reliable district-wide telecommunications infrastructure that provides broadband capacity and network connectivity for Internet and other digital resources.

OBJECTIVES

1. Insure user access via network administration.
2. Provide continuous and uninterrupted network connectivity.
3. Upgrade network to maintain adequate service.
4. Provide adequate throughput for WAN.
5. Provide users with access to the network and its resources.
6. Regularly monitor network.
7. Insure network security.
8. Provide protection for the network and its resources.
9. Provide sufficient server capacity at each site.
10. Insure protection of electronically stored data/information.
11. Maintain integrity of workstations.
12. Prevent virus contamination on network and workstations.
13. Update the Disaster Recovery Plan as needed.
14. Enhance communication through electronic Communication.
15. Provide email services to users.
16. Insure cafeteria equipment is maintained.
17. Provide technical support for finance, payroll, and time clock systems.
18. Replace obsolete technologies.
19. Maintain, repair, and upgrade existing technologies.
20. Add new technologies.
21. Insure adequate telephone and/or telecommunication services.
22. Insure sufficient bandwidth for telecommunication and network Access.
23. Insure cost effective purchases for internal connections.

Currently the district has approximately 1000 computers, laptops and tablets at the various sites. We are in the process of upgrading most of them within the next year to accommodate common core testing. This sets the student to computer ratio at approximately 3 students per computer for the district. We have also installed smartboards or promethean boards in all but a couple of classrooms in the district, 80 digital document cameras have been installed in classrooms (approx. 60% of

classrooms), and lastly a video conferencing unit has been purchased by the district to pursue opportunities with distance learning and virtual field trips.

The district has maintained a network and telecommunication infrastructure. Each site has a phone system with voicemail for each teacher. This helps to enable home school communication between parents and teachers. The network on each campus consists of a central switch from which each of the wings attaches through fiber links. Each wing is on its own subnet to help technology staff track down problems and manage traffic. The fiber links create a 1Gb/s backbone for each site allowing for the efficient flow of information on campus. Each site has its own server for storing files for staff. Between most sites the district has installed a fiber connection with a 1Gb/s bandwidth and a wireless back up link that has an average throughput of 10Mb/s. Browning Road school has a 200Mb/s fiber link provided by a vendor.

The district has a 400Mb/s link to the County Office of Education which serves as the internet service provider for the district. In addition to the networking hardware, the district has installed various monitoring devices to monitor bandwidth utilization, security incidents, traffic patterns, and Acceptable Use Policy Violations. By monitoring the bandwidth of the internet traffic as well as the links between the sites, the district is able to determine when it is time to increase the bandwidth for any given link. Virtualization of servers was implemented to help ease the management of servers and reduce the number of servers required by the district. The sites physical plant is currently in fair shape. The terminations are starting to break and show signs of wear. The wiring for each of the sites has been maintained with the growing of the schools. There is a plan in place to keep the network drops in the classroom at a sufficient level to accommodate any grade level's requirements. The aging equipment is scheduled for replacement in the 2015-2016 cycle for E-rate. We are waiting to hear on funding.

The district has Star Math, Star Reading, Lexia, Accelerated Reading, School City , Reading Counts, Hampton-Brown Avenues English Language Development program, Open Court Reading, Timez Attack, Math Blaster, Google earth, Microsoft Earth and the online resources of the adopted curriculum. We have been actively working with a school in Peru through online collaboration, video conferencing and student interchange for the past two years.

Currently the district has a Director of Information Systems, two computer technicians, and one teacher on special assignment at the district level to handle the support for the district. In addition, each school has a teacher on a stipend to provide technical support for the site. The District utilizes a trouble ticket system called School Dude. Technology issues are entered in the system by teachers and staff and the tickets are routed to technicians to work on the tickets. The tickets can also be analyzed for patterns.

4b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, technical support, and asset management needed by the LEA's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.

We need to increase the wireless coverage to accommodate the increase in the number of wireless devices coming on campus. this increase in devices may require an increase in bandwidth. There is a new school being built during the 2014-2016 school years, this school will require the same infrastructure that is currently the standard for the rest of the schools in the district; including network hardware, wireless access points, fiber and copper cabling, phone system, and video distribution system. The new school will also need computers, Smart boards, document cameras, sound systems and video projectors in every classroom.

We are also looking into virtual desktops to ease hardware management and customize environments.

A possible migration to VOIP telephones may be implemented if power and safety issues can be addressed.

Fiber terminations need to be repaired and reworked as they are currently up to 15 years old and showing signs of wear. The connectors are becoming brittle and several have failed.

A proper server room with AC, power backup and physical security is also needed. Power conditioning and power backup will need to be addressed before migrating phone systems to VOIP.

The McFarland Unified School District has in place a permanent 5 year replacement life cycle for technology assets outside of networking equipment.

Networking equipment is replaced according to funding by E-Rate. The school district plans for replacement every five years; however due to E-Rate funding the replacement cycle can by anywhere between five and seven years.

5. MONITORING AND EVALUATION COMPONENT CRITERIA: The plan must include an evaluation process that enables the school to monitor progress toward the specific goals and make mid-course corrections in response to new developments and opportunities as they arise.

5a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.

The key to evaluating technology effectively is to evaluate it on a regular basis to ensure that the investment in funding, time, and effort expended benefits the students.

Because technologies evolve so rapidly, it is imperative that the District regularly assess budgets, priorities, and needs to determine the future direction of our pursuit to integrate technology.

As a result, the district will continue to monitor, evaluate, and revise the technology plan by addressing the following issues:

- Accountability: Are the goals of the plan being accomplished? How are funds being spent?
- Quality: How well are program activities being implemented? Are the program's activities and services useful to our schools and district?
- Impact: Can we document whether or not the plan is positively affecting student achievement? What positive changes are seen in students, teachers, administrators, parents, and community members?
- Sustainability: How can we sustain the impact of this plan on the teaching and learning process?
- Lessons learned: Are there noteworthy lessons learned throughout this process?
- What factors should be examined to better accomplish the plan's objectives?

Our evaluation plan must first begin by determining if the goals of the plan are being implemented successfully. Then, we will monitor scheduled completion dates and progress toward fulfillment of each goal of the plan. Projected completion dates and project descriptions will be revised or rescheduled as needed.

Projects will be added to the plan to insure successful integration.

We will also evaluate to determine if and to what extent achievement of the goals are attributed to the implementation of the technology plan. It will then be decided if the objectives need to change or remain the same based on current research regarding instruction, curriculum, technology, or other relevant factors.

- Budgets will be reviewed throughout the year to insure adequate funds are available for project implementation. Adjustments will be made by revisiting timelines and projects scheduled for completion.
- Modification will be made when necessary while taking into consideration new technologies, budget decreases/increases, timeline modifications, and/or changes in the order of priorities.
- Evaluation will occur throughout the implementation process by utilizing both qualitative and quantitative data.
- Discussions, surveys, observations, and other methods will be used to collect information and gather feedback regarding program effectiveness.
- All stakeholders (students, parents, teachers, administrators, support staff, and business/community members) will provide input throughout the process.
- The district's professional development and needs assessment survey, technology proficiency assessments, and technology observations will serve as components of the evaluation process.

The aforementioned components will be used to assess the following:

- Total number of district computers
- Computer-to-student ratio
- Level of technology expertise of teachers
- Availability of technology to students and staff
- Methods of integration and level of usage
- Teacher use of computers and digital resources
- Student use of computers and digital resources
- Integration of assistive technologies
- Desired training opportunities

The district technology committee which includes all stakeholders will invite the

superintendent and Board of Education members to participate in the process, particularly when major revisions and/or additions are indicated. Maintaining an updated plan insures that the integrity of technology plan in the McFarland Unified School District is a living process and not just a written document.

5b. Describe the schedule for evaluating the effect of plan implementation, including a description of the process and frequency of communicating evaluation results to tech plan stakeholders.

The Technology committee is comprised of site technology coordinators, mentors, parents and administrators representing all sites in MUSD. This body will communicate findings to sites in their annual report to School Site Councils. The report will include recommendations that will assist school sites as they revise their school plans for annual Board approval. In addition, through an end of year report to the Board of Trustees there will be an opportunity to deliver the evaluation process as well as actual district progress and changes to the Technology Implementation Plan in a public setting which all community stakeholders can access.

The Director of Curriculum and Instruction will assist the Technology Committee to monitor and evaluate the implementation of the plan. MUSD will work with CTAP office staff to review the data which will allow the Technology Committee to evaluate and plan on-going next steps in technology, using the District-wide goals set to measure academic success for all student populations. The evaluation process will take place at the end of each of each school year at which point the final program and budget report will be submitted to the Board of Trustees for approval.