APPENDIX IX – 18

TUSD

Tucson Unified School District

MULTI-YEAR TECHNOLOGY PLAN

I. USP LANGUAGE

IX. FACILITIES AND TECHNOLOGY

B. Technology and Technology Conditions

1. By July 1, 2013, the District shall develop a Technology Conditions Index ("TCI"), which rates technology and technology conditions in schools along multiple technological dimensions and provides a composite score for each school. The TCI shall include, at minimum, the following: (i) student access to computers and other learning devices (*e.g.*, smart boards); the location of computers and learning devices (lab or classroom or both); (ii) availability of wireless and broadband Internet in a school; (iii) availability of research-based educational software or courseware; and (iv) teacher proficiency in facilitating student learning with technology.

2. The District shall assess the technology in each school biannually using the TCI.

3. Based on the results of its assessment using the TCI, the District shall develop a multi-year Technology Plan that provides for enhancements and improvements to the District's technology, with priority given to basic maintenance and required repairs and to Racially Concentrated Schools that score below the District average on the TCI.

4. The District shall include in its professional development for all classroom personnel, as more fully addressed in Section (IV)(J)(3), training to support the use of computers, smart boards and educational software in the classroom setting.

C. Reporting

1. The District shall provide, as part of its Annual Report: a. Copies of the amended FCI, ESS and TCI; b. A summary of the results of the FCI, ESS, and TCI analyses conducted over the previous year; c. A report on the number and

employment status (*e.g.*, full-time, part-time) of facility support staff at each school (*e.g.*, custodians, maintenance and landscape staff), and the formula for assigning such support; d. A copy of the multi-year facilities plan and multi-year technology plan, as modified and updated each year and a summary of the actions taken during that year pursuant to such plans; and e. For all training and professional development provided by the District, as required by this Section, information on the type of training, location held, number of personnel who attended by position, presenter(s), training outline or presentation, and any documents distributed.

Technology Condition Index Description

II. DEFINITIONS

Arizona Technology Comfort Measure ("TCM") – A thirty-five-question technology integration self-assessment for teachers.

Technology Conditions Index ("TCI") – A tool used to develop a composite score for each school after rating the condition of the technology, the availability of instructional software, and a teacher's proficiency in facilitating student learning with technology along multiple dimensions. It is the scored index for each school and district of the current state of the Technology with a scale of 1 to 5.

Arizona Technology Integration Matrix ("TIM") – A tool used to assist teachers and other educators in assessing the current level of technology integration that is occurring within a classroom.

Arizona Technology Integration Matrix Observation Tool ("TIM - O") – A tool for guiding principals, teachers, and others through the process of evaluating the level of technology integration within a particular classroom.

Teacher software survey – A survey completed by teachers to capture instructional software data with respect to title, student audience, and frequency of use.

III. PLAN EXECUTIVE SUMMARY

The results of the TCI scores for each campus in conjunction with analysis have resulted in a multi-year plan which addresses the hardware and the teacher proficiency professional development needs. Questions on the teacher proficiency were based on research conducted by the National Center for Education Statistics. [i] Tucson Unified School District owns and maintains approximately 16,500 computing devices deployed in

classrooms and labs at 85 campuses. In February 2013, the federal court approved the Unitary Status Plan that mandates the school district to develop a Technology Conditions Index (TCI) that includes, at minimum: student access to computers and other learning devices, the location of computers and other learning devices, availability of wireless and broadband Internet in schools, availability of research-based educational software or courseware, and teacher proficiency in facilitating student learning with technology.

In order to determine technology conditions, the District collected and analyzed data from various files and databases, which contain hardware/software information, which are updated on an ongoing basis. The District conducted a survey of teachers and administrators that collected educational software and teacher proficiency data. The District categorized the collected data into ten major technology categories and compared these to the District's technology standards. The District compiled the data for each category, formulating a weighted composite score for each school. Ratios were organized by district campus types; Elementary, Middle (K-12), High School.

The following Appendices contain the supporting data and professional development plan which support the MYTP.

- TCI Composite Scoring - Appendix A
- TCI Hardware & Costing - Appendix B
- TCI Teacher Proficiency Scoring - Appendix C
- TCI National Center for Education Statistics Institute of Education Sciences - Appendix D
- Augmented Support Plan, Appendix E (This is the district's plan for teachers who fall below the TCI teacher proficiency score.)
- TCI Teacher Survey - Appendix F
- Sample Question from TCI Software Survey - Appendix G

The District recommends that the campuses with the lowest District TCI average and are racially concentrated to be considered a priority and to be upgraded in the upcoming school years, based upon available funding.

School Year 15-16

Campus	TCI Score	USP Integration
Tully Magnet	3.23	Racially Concentrated
Miller	3.34	Racially Concentrated
Manzo	3.38	Racially Concentrated
Robins	3.40	Racially Concentrated

School Year 16-17

Campus	TCI Score	USP Integration

Cholla	3.44	Racially Concentrated
Mansfeld	3.49	Racially Concentrated
Lynn/Urquides	3.53	Racially Concentrated
Vesey	3.54	Racially Concentrated
Roskruge Bilingual Magnet	3.59	Racially Concentrated

School Year 17-18

Campus	TCI Score	USP Integration
Bonillas Basic Curriculum Magnet	3.19	Racially Concentrated
Davis Bilingual Magnet	3.35	Racially Concentrated
Drachman Montessori Magnet	3.47	Racially Concentrated
Valencia	3.48	Racially Concentrated
Pistor	3.59	Racially Concentrated

Current best practices of embedding teacher experts and implementation of personal learning communities focused on purposeful technology teaching and learning will be implemented. Effective teaching methods, models of innovative technology infusion, and relevant school data as well as professional beliefs will be utilized. To that end, a practicing teacher will be assigned to train and develop colleagues' ability and proficiency level utilization of instructional technology including, but not limited to Promethean Board. Teacher technology liaisons will meet with teachers in small groups, one on one and online to facilitate ongoing sustainable training in the most efficient manner. Teacher technology liaisons will be augmented by instructional technology department staff offering some training as well. Through teacher technology liaisons modeling lessons, online communities and in person training and communication, teachers will improve skill set.

Teachers meet on a regular schedule in learning teams organized with the teacher technology liaison and share responsibility for their own success. Learning teams follow a cycle of continuous improvement that begins with determining the specific area where training is needed as one size does not fit all thereby pinpointing areas where additional educator learning is necessary. Teacher technology liaison will work closely with teachers to identify and create learning experiences to address these adult needs, developing powerful lessons and assessments, applying new strategies in the classroom, repeating the cycle with new goals.

Augmented Teacher Support Strategy:

Through targeted intervention as indicated by TCI, targeted intervention will be:

1. One on one in person professional development with teacher
2. Educational Technology Integration Specialist deployed to augment teacher technology liaisons where needed as evidenced by TCI data.
3. Online archive of "Help" content
4. Scheduled Monthly group professional development sessions at rotating sites targeted based on need

Personnel	Responsibilities
District Level: Instructional Technology Department staff	• Provide ongoing training to teacher technology liaisons • Facilitate site based training as needed • Assist teacher technology liaisons in maintaining and organizing professional development assessment
Building Level: Principal	• Meet with Director of Instructional Technology to analyze school staff professional development needs as identified by TCI
Building Level: Teacher technology liaison	• Provide technology professional development training to building faculty • Facilitate Personal Learning Communities
Teacher	• Work with teacher technology liaison to improve 21st Century technology teaching skills • Integrate new skillset into delivery of instruction • Collect artifacts/evidence of delivery of instruction with new skill set

The district recommends the following schedule to be used in preparation for the Arizona Technology Integration Matrix (TIM). The schedule below outlines the target professional development modules. Details of the TCI proficiency results are shown starting on page 17.

Utilizing Arizona Department of Education Technology for Teachers Strand 2

Strand 2: Communication and Collaboration:

Concept 1: Effective Communications and Digital Interactions

Communicate and collaborate with others employing a variety of digital environments and media

School Year	Technology Strand	Technology Professional Development Topics
2014/15-Baseline	Strand: 2Communication and Collaboration: Concept 1: Effective Communications and Digital Interactions Communicate and collaborate with others employing a variety of digital environments and media Source : Arizona Department of Education Technology Standards for teachers	Successmaker
2015/16	In addition to professional development for current teachers, current teachers, technology professional development will be delivered via new teacher on-boarding	SuccessMaker, Promethean Board, Document Camera, curriculum lesson plans, saving files, COW usage, SharePoint
2016/17	In addition to professional development for current teachers, current teachers, technology professional development will be delivered via new teacher on-boarding	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Sharepoint, Districtwide productivity software i.e. Office 365, Online Assessment

2017/18	In addition to professional development for current teachers, technology professional development will be delivered via new teacher on-boarding	Technology professional development offerings will continue to be assessed and updated to address continuous improvement needs of staff. However, the following courses will be offered: Web 2.0 tools, Classroom websites

IV. TCI PROCESS

Prior to the beginning of each academic school year, Technology Services will import hardware/software inventories, network infrastructure data, and teacher software survey data* into the TCI instrument. During the first quarter of each academic school year, teachers will complete the TCM and the data will be aligned with the Teacher Proficiency assessment based on the above schedule to produce a weighted proficiency score for each teacher. The TCI will then aggregate these data sets and produce an index score for each school. The District will analyze this data and a District average will be calculated. The District average and the District Average District Type will be used as the standard against which individual schools will be assessed to identify any deficiencies and will be used in the creation/modification of the District's Strategic Technology and Professional Development Plans, with priority given to Racially Concentrated Schools identified by the USP. During the fourth quarter Technology Services will repeat the process prior to the end of the academic school year to capture the District's efforts as directed by the initial TCI assessment. The District will then analyze the data to foster continuous improvement and augment teacher support.

1. TECHOLOGY DEVICE INVENTORY

The inventory of equipment was compiled by the Technology Service's Systems Installation Coordinator and the field technician team at each of the 85 campuses by manually counting and recording the equipment into spreadsheets with the baseline data presented on Oct 2, 2014 (directly after the 40th day) with continuous inventory updates throughout the year. The data includes a device type, model name, district asset number, serial number, room description, purchase order number and purchase date.

To ensure data integrity, a verification process was applied. The data is verified by taking out and/or resolving duplicates, resolving misspelling of model names and/or descriptions and categorizing room identifiers into classroom or lab. The data is then sorted by school, room and device type. Upon completion, the data is loaded into the TCI application.

A ratings matrix was developed for each type of equipment as follows:

1. Computers (16,766 in use in classrooms)

   The model was used to retrieve the amount of memory, the count and speed of the processors and if it was desktop or mobile device (laptop, notepad) from the districts Trackit software. This information was used to determine the score (weight) each computer model would be assigned. With the highest capable computer being assigned a 5 and the lowest a 1. Those computers that dramatically exceeded the norm were normalized at 5 (typically specialty computers cause this). The computer score was then influenced by the ratio of students to computer.

2. Printers and Scanners (2,520 in use in classrooms)

   Printers were scored based on count of printers per site with the highest count getting a score of 5 and the lowest count a 1 and those in between pro-rated.

3. White/Smart Boards (2000 in use in classrooms)

   White/Smart Boards were scored based on count of boards per site with the highest count getting a score of 5 and the lowest count a 1 and those in between pro-rated.

4. Response Devices (6400 in use in classrooms)

   Response Devices allows student to answer by remote control. They were scored based on count per site with the highest count getting a score of 5 and the lowest count a 1 and those in between pro-rated.

5. Projectors and Document Cameras (3,917 in use in classrooms)

   Projectors and Cameras were scored based on count per site with the highest count getting a score of 5 and the lowest count a 1 and those in between pro-rated.

6. Multi-media Devices (113 in use in classrooms)

   Multi-media Devices were scored based on count per site with the highest count getting a score of 5 and the lowest count a 1 and those in between pro-rated.

7. Servers and disk space

   Server access and disk space is a moving to a centrally based system (Cloud) for all campuses. Bandwidth is the same at all schools and hence there is no effect of students per servers or available DASD per school/student as it is a shared model for all schools.

2. SOFTWARE (titles in use in the classroom)

In 2014, 2336 teachers completed a survey to determine which software titles were being used in their classrooms and the frequency of use. The software survey results were the following: Accelerated Reading, Achieve 3000, ALEKS, ATI Galileo, Exam view, Imagine Learning, Language of Literature, Plato, Read 180, Rosetta Stone, Study Island, Success Maker, Success Net, System 44, Teacher Express, Virtual Reading Coach, Waterford Early Learning, Microsoft Excel, Microsoft PowerPoint, Microsoft Word, Promethean ActivInspire, and SMART Notebook. A score was calculated by taking the frequency and the count of titles used and assigning a score of 5 for the most used titles and highest frequency and 1 for the least used titles and lowest frequency. This was then accumulated per school by teacher based on location.

3. TECHNOLOGY CONNECTIVITY

All campuses have campus wide wireless coverage and all campuses have the same inter-connectivity (WAN) bandwidth of 1GB. All campuses have the same level of connectivity to the internet (central internet line). This would be a wash in the TCI as all schools would get the same score.

V. TCI SCORING

1. HARDWARE / SOFTWARE INVENTORY

The TCI utilizes a rating scale of 0 - 5 to establish the condition of technology. The following provides an overview of the ranking standards:

Excellent Condition = 5

Technology rated at 5 is new or equivalent to today's new technology. The hardware is the latest offered by the manufacturer, with the latest available firmware updates. It is fully compatible with any anticipated upgrades to TUSD technology and network environment. All accessories are present and in new condition. The newest versions of the software are installed, with all available updates. Every aspect is completely safe and ergonomically ideal. The technology fully supports and enhances the educational mission.

Good Condition = 4

Technology rated at 4 has been properly maintained and updated in better-than-average condition. The hardware is under warranty, within the manufacturer's current life cycle, and fully compatible with the current TUSD technology and network environment. Accessories are available and in good condition. The software has all available updates installed. Every aspect is safe and ergonomic. The technology supports and enhances the educational mission.

Acceptable Condition = 3

Technology rated at 3 has had proper preventative maintenance and attention to work orders keeps it in acceptable condition. The hardware is compatible with essential TUSD technology and network environment. It is supportable, with replacement parts available from the manufacturer. Accessories are available. The software works and is relevant. Any safety and/or ergonomic issues are very minor. The technology supports the educational mission.

Fair Condition = 2
Technology rated at 2 is usable; however, it is at the end of its life. The hardware may have some incompatibilities with the TUSD technology and network environment. It is supportable but may require third-party replacement parts after the warranty expires. Accessories are missing or in short supply. The software may have some incompatibilities and may not be relevant in today's market. Any safety and/or ergonomic issues are moderate and can be worked around. The technology has minimal impact on the educational mission.

Poor Condition = 1
Technology rated at 1 has not been maintained, or has aged so that replacement should be considered. The hardware and software are incompatible and irrelevant in today's market. Hardware parts are expensive or not available at all. Accessories are missing. Software updates are not available. Significant safety and/or ergonomic issues may exist, but can still

be worked around. The technology presents challenges to accomplishing the educational mission.

Broken or Unsafe = 0
Technology rated at 0 does not function, is unsafe, and/or is ergonomically unacceptable. Repair/workaround is not possible. The technology prevents the educational mission.

2. TEACHER PROFICENCY

The district conducted a survey of teachers regarding facilitating student learning with technology. Ratings were assigned based on their comfort in using technology for classroom instruction; their ability to design and assess lessons with technology; how often they deliver curriculum using various technologies; and which technologies they feel are essential to their classroom success. Each teacher was rated based on the average of their scores on these questions, and then we rated each school based on the average of its teachers' ratings

The district also asked teachers the purpose for which their students use computers. The plan is to use the answers to this question when developing the yearly targeted professional development and multi-year Technology Plan providing for improvements to teacher proficiency

3. TEACHER PROFICENCY SURVERY (Baseline)

In December 2014 and January 2015, the district conducted a survey of teachers regarding use of technology in classrooms. Teachers were asked how comfortable they are using technology for classroom instruction, and asked to classify their ability to design and assess lessons with technology resources for students.

Ratings were assigned to the answers as follows:

Comfortable using technology		Ability to design and assess lessons	
Somewhat comfortable	1	Not quite there yet	0
Comfortable	3	Beginner with support	1
Very comfortable	5	Confident on my own	3
Capable of teaching others	4	Capable of publishing to the Internet	5

They were asked how often they use each of the following technologies to deliver curriculum:

- Computers
- Interactive Whiteboards
- Document Cameras
- Presentation Software

They were also asked how often their students use computers in class or in a lab.

Ratings were assigned to these five answers as follows:

Daily	5
Weekly	5
Bi-Weekly	3
Monthly	3
Seldom-Never	1
NA (This technology is not available)	3

A rating of 3 for NA reflects the fact that a teacher's *ability* to deliver curriculum does not necessarily depend on whether the equipment is available to them.

The district asked the teacher to list the types of technology they feel is essential to their success in the classroom. This was a free-text field. The responses were analyzed, and noted which of the following types of technology they had selected.

- Computers (including specific mention of desktop and/or laptop computers)
- Interactive Whiteboards
- Document Cameras
- Projectors
- Laptop Computers
- Internet / Wi-Fi
- Software
- Tablet Computers
- Multimedia
- Printers
- Labs or Computers-on-Wheels (COWs)
- Desktop Computers
- Calculators
- Speakers
- Student Response Systems
- Cameras
- Headsets
- Copiers
- Assistive Technology
- Cell Phones
- Scanners

Ratings were assigned to the answers by counting the number of categories mentioned. Mention of 0 to 5 categories received a rating equal to the number of categories; mention of more than 5 categories received a rating of 5.

Each teacher's rating was based on the average of their scores on these eight questions, and then we rated each school based on the average of its teachers' ratings. A possible future enhancement would include the ability to assign different weights to the questions.

Teachers were asked what the most frequent purpose for which students use computers (practicing a skill, strategic intervention, research, or creating projects). The plan is to use the answer to this additional question to guide improvement of teacher proficiency.

*The teacher software survey will be administered every two years, unless significant

changes are made, or required, by the District or the Arizona Department of Education. The survey measures software titles used by teachers in instruction and presentation, frequency of use, and student target audience. The alignment of instructional software to standardized curriculum is an ongoing process involving centralized procurement and curriculum development. Software changes that result from this process will occur on an annual or biennial basis; therefore it is not informative to conduct the survey at a higher frequency than every two years.

4. TEACHER SOFTWARE SURVEY

The TCI utilizes a rating scale of 1 - 5 to weight the frequency of use of instructional/presentation software. The following provides an overview of the ranking standards:

Excellent Frequency = 5
The results of the teacher software survey indicate that instructional/presentation software is used daily and greatly enhances teaching and learning.

Good Frequency = 4
The results of the teacher software survey indicate instructional/presentation software is used weekly and enhances teaching and learning.

Acceptable Frequency = 3
The results of the teacher software survey indicate instructional/presentation software is used occasionally, but minimally enhances teaching and learning.

Fair Frequency = 2
The results of the teacher software survey indicate instructional/presentation software is used monthly, but does not enhance teaching and learning.

Poor Frequency= 1
The results of the teacher software survey indicate instructional/presentation software is used only once or twice every semester and detracts from teaching and learning.

VI. SUMMARY

The TCI Composite Score is calculated by: weighting the scores of Classroom Equipment at 26.2% + the scores of Lab Equipment at 26.2% + the scores of Software at 5.3% + the Teacher Proficiency scores at 42.3% per campus. The weighted percentages are respresented in whole rounded numbers in Appendicies A,B and C.

The District's TCI score equals **3.67**

(TCI results can be found in Appendix A)

The District recommends the following campuses receive upgraded and/or new hardware as indicated by the TCI. The 14 sites to receive new equipment as part of the Multi-Year Technology plan are all below the district average TCI score. According to data from National Center for Education Statistics the national average ratio for students per computer for elementary schools was 3.2 and for secondary 2.9, see appendix D. From the same data source, the national percentile computers located in classrooms versus other locations is 51% see appendix D. The 4 schools proposed for Year 1 are the farthest below the national average ratio for students per computer. The 5 schools for the Year 2 also fall below the national ratio. The 5 schools for Year 3 fall only fall below the district TCI average. Computers were chosen to be replaced and/or supplemented based on the national percentile for classrooms and labs and if the computer model score for that campus was below the replacement value. We identified all campuses that fall below the district average and are addressing each campus in the Multi-Year Technology Plan. The current 3 year plan is displayed below:

School Year 15-16

School Tully Magnet Elementary		TCI Score: 3.23	
The recommendation is to increase classroom computers by 17, replace 33 lab computers and add 25 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	17	1000	17,000
Computer – laptop	58	1500	87,000
Total Cost of all items			**104,000**
Campus's new TCI Score after addition of new items:			**3.70**

School Miller Elementary		TCI Score: 3.34	
The recommendation is to replace the 64 classroom computers, add 33 classroom computers, replace 47 lab computers and add 50 lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer- desktop	97	1000	97,000
Computer- laptop	97	1500	145,500
Total Cost of all items			**242,500**
Campus's new TCI Score after addition of new items:			**3.81**

School Manzo Elementary		TCI Score: 3.38	
The recommendation is to increase classroom computers by 21 and to replace 66 lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	21	1000	21,000
Computer – laptop	66	1500	99,000
Total Cost of all items			**120,000**
Campus's new TCI Score after addition of new items:			**3.67**

School Robins K-8		TCI Score: 3.40	
The recommendation is to increase classroom computers by 43 and increase lab computers by 65.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	43	1000	43,000
Computer – laptop	65	1500	97,500
Total Cost of all items			**140,500**
Campus's new TCI Score after addition of new items:			**3.81**

School Year 16-17

School Cholla High Magnet		TCI Score: 3.44	
The recommendation is to increase classroom computers by 45 and increase lab computers by 199.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	45	1000	45,000
Computer – laptop	199	1500	298,500
Total Cost of all items			**343,500**
Campus's new TCI Score after addition of new items:			**3.72**

School Mansfeld Middle		TCI Score: 3.49	
The recommendation is to add 68 additional classroom computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	68	1000	68,000
Computer – laptop			
Total Cost of all items			**68,000**
Campus's new TCI Score after addition of new items:			**3.67**

School Lynn/Urquides Elementary		TCI Score: 3.53	
The recommendation is to replace 28 lab computers and to add 29 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop			
Computer – laptop	57	1500	85,500
Total Cost of all items			**85,500**
Campus's new TCI Score after addition of new items:			**3.67**

School Vesey Elementary		TCI Score: 3.54	
The recommendation is to add 22 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop			
Computer – laptop	22	1500	33,000
Total Cost of all items			**33,000**
Campus's new TCI Score after addition of new items:			**3.74**

School Roskruge Bilingual Middle Magnet		TCI Score: 3.59	
The recommendation is to add 42 additional classroom computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	42	1000	42,000
Computer – laptop			
Total Cost of all items			**42,000**
Campus's new TCI Score after addition of new items:			**3.70**

School Year 17-18

School Bonillas Basic Curriculum Magnet		TCI Score: 3.19	
The recommendation is to add 35 classroom computers and to add 100 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	35	1000	35,000
Computer – laptop	100	1500	150,000
Total Cost of all items			**185,000**
Campus's new TCI Score after addition of new items:			**3.67**

School Davis Bilingual Magnet Elementary		TCI Score: 3.35	
The recommendation is to add 26 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop			
Computer – laptop	26	1500	39,000
Total Cost of all items			**39,000**
Campus's new TCI Score after addition of new items:			**3.70**

School Drachman (K-6) Montessori Magnet		TCI Score: 3.47	
The recommendation is to add 40 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop			
Computer – laptop	40	1500	60,000
Total Cost of all items			**60,000**
Campus's new TCI Score after addition of new items:			**3.67**

School Valencia Middle		TCI Score: 3.48	
The recommendation is to add 105 additional lab computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop			
Computer – laptop	105	1500	157,500
Total Cost of all items			**157,500**
Campus's new TCI Score after addition of new items:			**3.67**

School Pistor Middle		TCI Score: 3.59	
The recommendation is to replace 100 classroom computers and to add 45 additional classroom computers.			
Item:	Quantity:	Cost Each:	Total Cost:
Computer – desktop	145	1000	145,000
Computer – laptop			
Total Cost of all items			**145,000**
Campus's new TCI Score after addition of new items:			**3.67**

Teacher Proficiency Plan and Recommendations

Teacher technology liaisons will be selected before the start of the school year. They will receive a $2500 stipend. Train the trainer Model to be implemented as follows:

Known as a "teacher technology liaison", a practicing teacher will be assigned to train and develop colleagues' ability and proficiency level utilization of instructional technology including, but not limited to Promethean Board. These individuals will receive ongoing training by the instructional technology department as well as online resources i.e. distance learning. Teacher technology liaisons will meet with teachers in small groups, one on one and online do facilitate ongoing sustainable training. Teacher technology liaisons will be augmented by instructional technology department staff offering some training as well. Through teacher

technology liaisons modeling lessons, online communities and in person training and communication, teachers will improve skill set.

Teachers meet on a regular schedule in learning teams organized with the teacher technology liaison and share responsibility for their own success. Learning teams follow a cycle of continuous improvement that begins with determining the specific area where training is needed as one size does not fit all thereby pinpointing areas where additional educator learning is necessary. Teacher technology liaison will work closely with teachers to identify and create learning experiences to address these adult needs, developing powerful lessons and assessments, applying new strategies in the classroom, repeating the cycle with new goals.

Augmented Teacher Support Strategy:

Through targeted intervention as indicated by "____" data, targeted intervention will be:

- One on one in person professional development with teacher
- Educational Technology Integration Specialist deployed to augment teacher technology liaisons where needed as evidenced by "_____" data.
- Online archive of "Help" content
- Monthly group professional development sessions at rotating sites targeted based on need

The District recommends the following campuses to receive the baseline professional development and augmented support plans as indicated by the TCI Teacher Proficiency Scoring. The identified campuses that fall below the district average for teacher proficiency and is addressing each campus in the Multi-Year Technology Plan. Details of the Teacher Proficiency results begin on page 17. The current 3 year plan is displayed below:

Technology Professional Development focused areas by Invention Applications, Educational Software and Productivity Software by year.

Year	Technology Professional Development
2014/15	Successmaker, Promethan Board
2015/16	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, SharePoint
2016/17	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Sharepoint, Districtwide productivity software i.e. Office 365, Online Assessment
2017/18	Technology professional development offerings will continue to be assessed and updated to address continuous improvement needs of staff. However, the following courses will be offered: Web 2.0 tools, Classroom websites

Note: Each of the professional development offerings will be offered every other month throughout the district and is tied to all academic disciplines.

Technology Professional Development Curriculum Alignement focused area by Invention Applications, Educational Software and Productivity Software aligned by course offering for school years 2015- 2018.

Learning Objectives **Course Offering**	**Math** **Curriculum Alignment**	**Science, Social Studies** **Curriculum Alignment** **Language Arts** **Curriculum Alignment**
Successmaker	Mastery of the Learning	

Introduction, basic navigation and operation, teacher and student role and responsibilities. Online Assistance Transferring Students Adding New Groups Adding Users to a Group Removing Groups User Types Adding New Users Deleting a Student	Objectives located in the second column from the left allows the teacher to address the following standards: **CCSS.Math.Practice.MP1 Make sense of problems and persevere in solving them** ***Source Tucson Unified School District Math Curriculum Guide K-5**	Mastery of the Learning Objectives located in the second column from the left allows the teacher to address the following standards: Reading Across The Curriculum: Reading Informational Text ***Source: Tucson Unified School District Curriculum Guide** :
Course Offering Advanced Successmaker Reporting, Intervention cycle, answer patterns and standards mastery. Import Feature Setting Up files Messages Areas of Difficulty Report, Cumulative Performance Reports, Last Session Reports, Prescriptive Scheduling, Student Performance Report, System Enrollment an Usage,	**CCSS.Math.Practice.MP 1 Make sense of problems and persevere in solving them**	Mastery of the Learning Objectives located in the second column from the left allows the teacher to further address the following standards:

Math Strand Matrix	**CCSS.Math.Practice.MP 2 Reason abstractly and quantitatively.** ***Source Tucson Unified School District Math Curriculum Guide K-5** **CCSS.Math.Practice.MP 5 Use appropriate tools strategically.** ***Source 6-12 Tucson Unified School District Math Curriculum Guide**	Reading Across The Curriculum: Reading Informational Text *Source: Tucson Unified School District Curriculum Guide
Course Offering Promethean Board Introduction, board orientation, introduction to flipcharts ActivClassroom, Foundational Tools, Resource Browser, Page Browser, Notes Browser, Presentation tools, Math tools,	**CCSS. Math. Practice. MP1 Make sense of problems and persevere in solving them**	

	***Source 6-12 Tucson Unified School District Math Curriculum Guide**	
Course Offering Advanced Promethean Board Creating and downloading flipcharts, advanced tools, importing files, Dice, Calculator, Ruler, Protractor, Compass, XY Origin, Object Browser, Pen Modifier Tool, Page Turn Effects, Equation Editor, Page Extender Tool, Exporting files, Camera Tool, Shape Tool, Desktop tools, Studio Calculator, Primary Calculator, Insert Link, Customizing ActivInspire,	Mastery of the Learning Objectives located in the second column from the left allows the teacher to address the following standards: **CCSS.Math.Practice.MP 1 Make sense of problems and persevere in solving them** **CCSS.Math.Practice.MP 2 Reason abstractly and quantitatively.** ***Source Tucson Unified School District Math Curriculum Guide K-5** **CCSS.Math.Practice.MP 5 Use appropriate tools strategically.** ***Source 6-12 Tucson Unified School District**	Mastery of the Learning Objectives located in the second column from the left allows the teacher to address the following standards in Science: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context Standard RST.6-8-4 ***Source Tucson Unified School District Science Curriculum Guide**

	Math Curriculum Guide	
Course Offering District Intranet Navigation, search, forms location	**Standard 3a:** Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations **Standard 3b:**Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation	
Course Offering Document Camera Operation, lesson development, Categorizing concepts, timelines, Active Reading Proofreading Math manipulatives timers, Show and tell, Maps, Saving images, Daily Oral Language Math Manipulatives i.e. compass, ruler, thermometer, base ten blocks, etc. Use of calculator Set up math problems using notebook paper Math workbook pages Displaying and creating graphs Science experiments, Dissections	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context Standard RST.6-8-4 ***Source Tucson Unified School District Science Curriculum Guide** Also aligned with Tucson Unified School District Read Across Curriculum Standard	
Course Offering Sharepoint	**International Society for Technology in Education Standards for teachers**	

Introduction, navigation, downloading documents, uploading documents, using calendar, edit personal information	**Standards for Teachers Standard 3a:** Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations **Standard 3b:**Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation .
Course Offering Advanced Sharepoint Create a folder, SkyDrive, create a calendar, Create a column, Create a task list, Add a new task, embed video, create a view, edit a view, Sharepoint in the Cloud	**International Society for Technology in Education Standards for Teachers** **Standard 3a**: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations **Standard 3b:**Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
Course Offering Office 365 Introduction, where to save files, "cloud" concept, how to access files	**International Society for Technology in Education Standards for Teachers Standard 3a**: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
Course Offering Advanced Office 365 Excel-functions, charts,	International Society for Technology in Education Standards for Teachers Standard 3a: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations

pivot tables Word- Formatting, hyperlinks, charts PowerPoint- Linear and nonlinear, embedding objects	International Society for Technology in Education Standards for teachers Standard 3b: Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
Course Offering Online Assessment Introduction, how to give online assessment, interpreting data, how to utilize data to inform teaching	International Society for Technology in Education Standards for Teachers Standard 3a: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
Course Offering Web 2.0 tools Utilize wikis, twikis, blogs and podcasts in instruction	International Society for Technology in Education Standards for Teachers Standard 3a: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations Standard 3b: Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
Course Offering Classroom Websites Create, maintain and expand classroom website utilizing district platform already in place	International Society for Technology in Education Standards for Teachers Standard 3a: Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations Standard 3b: Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation

Pre-Deployment plan for Teacher technology liaisons in support of Augmented Support Plan

Timeframe	Action Step
May 2015	Teacher technology liaisons identified via vetting/interview process
June 2015	Teacher technology liaisons review their building TCI data with Instructional Technology staff
Mid-July 2015	Teacher technology liaisons attend "Boot Camp" offered by Instructional Technology staff to be trained to deliver technology professional development
August 3	Teacher technology liaisons fully deployed at their school sites equipped to begin to deliver professional development as informed by TCI
May 2016	Repeat and improve upon process as evidenced by prior year.

Note: Professional Development will be offered at every school.

Deployment plan for Teacher technology liaisons in support of Augmented Support Plan

Person/People Responsible	Time Interval	Action Step
Principal/ Director of Instructional Technology	Annually	Meet and confer with principal regarding technology proficiency of staff as indicated by TCI
Teacher technology liaison	At least bi monthly	Provide as needed, technology professional development training as informed by TCI via one or more of the following delivery methods in person, online, one on one, small group
Teacher technology liaison/Teacher/Instructional Technology Staff	Quarterly	Provide ongoing assessment via one or more of the following methods: online, informal observation, practical exam of teacher technology proficiency, analyze, collect data/artifacts as evidence of teacher proficiency and appropriate ongoing technology professional development

The following campuses have scored below average on the TCI and will receive the augmented support plan as indicated on the table below:

School	Type of Campus	Augmented Support Plan
Bonillas Basic Curriculum Cavett Davis Bilingual Grijalva Howell Hudlow Johnson Primary Lineweaver Lynn/Urquides Maldonado Manzo Marshall Oyama Tolson Tully Van Buskirk White Drachman Montessori Miles Exploratory Learning Center, Pueblo Gardens, Robins Safford,	**Elementary, Magnet or K-8**	SuccessMaker, District Intranet and Promethean Board technology

School	Type of Campus	Augmented Support Plan
Dodge Traditional Magnet Middle Doolen Middle Gridley Middle Magee Middle Mansfield Middle Pistor Middle Secrist Middle School, Utterback Middle Magnet School of the Arts, Vail Middle Valencia Middle	**Middle Schools**	SuccessMaker, District Intranet and Promethean Board technology
Catalina Magnet Cholla Magnet Palo Verde Magnet Sahuaro High School, Santa Rita High School	**High Schools**	SuccessMaker, District Intranet and Promethean Board technology

The following campuseshave scored average on the TCI and will receive the following augmented support plan indicated below:

School	Type of Campus	Augmented Support Plan
Blenman Elementary	Elementary	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, SharePoint technology professional development
Tucson High School	High School	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, SharePoint technology professional development

The following campuses scored above TCI district average and will receive the augmented support plan as indicated on the table below

School	Type of Campus	Augmented Support Plan
Dietz K-8 School, Hollinger K-8, Mary Belle McCorkle Academy of Excellence	K-8, Elementary	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Sharepoint, Districtwide productivity software i.e. Office 365 and Online Assessment

Roskruge Bilingual	Middle School	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Sharepoint, Districtwide productivity software i.e. Office 365 and Online Assessment
Project More Pueblo High Sabino High University High School, Teen Age Parent High School	High School	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Sharepoint, Districtwide productivity software i.e. Office 365 and Online Assessment

District Distribution Schedule of Teacher Technology Liaisons

Column 1 in the table below contains the name of each school. Column 2 contains the number of students at that particular campus. Column 3 contains the professional development plan course offerings for 2015/16. Column 4 contains the number of teacher technology liaisons for designated per campus dependent on number of students attending that campus and type of campus i.e. elementary, middle or high school. The precise number of teacher technology liaisons per campus were determined by the following method: Up to 400 students, each campus will receive 1 teacher technology liaison. Campuses with 400 to 799 students receive two teacher technology liaisons. Campuses with 800 to 1199 receive teacher technology liaisons. As the student population increases on a given campus, the same formula will be applied. The one exception to this criteria is that Project MORE and TAPP will share the same teacher technology liaison due to their small student population. Each teacher technology liaison will receive a $2500 stipend.

School	**Type of School**	**Students**	**Teacher Technology Liaisons per campus**
Banks	Elementary or K-8	348	1
Blenman	Elementary or K-8	464	2
Bloom	Elementary or K-8	381	1
Bonillas	Elementary or K-8	432	2
Borman	Elementary or K-8	461	2
Borton	Elementary or K-8	461	2
Carrillo	Elementary or K-8	298	1
Cavett	Elementary or K-8	320	1
Collier	Elementary or K-8	212	1
Cragin	Elementary or K-8	372	1
Davidson	Elementary or K-8	328	1
Davis	Elementary or K-8	346	1
Meredith	Elementary or K-8	55	1

School	Type of Campus	Students	Teacher Technology Liaisons per campus
Dietz	Elementary or K-8	434	2
Drachman	Elementary or K-8	309	1
Dunham	Elementary or K-8	235	1
Erickson	Elementary or K-8	550	2
Ford	Elementary or K-8	365	1
Fruchthendler	Elementary or K-8	353	1
Gale	Elementary or K-8	418	2
Grijalva	Elementary or K-8	692	2
Hollinger	Elementary or K-8	545	2
Henry	Elementary or K-8	389	1
Holladay	Elementary or K-8	262	1
Howell	Elementary or K-8	377	1
Hudlow	Elementary or K-8	315	1
Hughes	Elementary or K-8	371	1
Johnson	Elementary or K-8	354	1
Kellond	Elementary or K-8	576	2
Lawrence	Elementary or K-8	353	1
Lineweaver	Elementary or K-8	564	2
Lynn	Elementary or K-8	609	2
Maldonado	Elementary or K-8	380	1
Manzo	Elementary or K-8	310	1

School	Type of School	Students	Teacher Technology Liaisons per campus
Marshall	Elementary or K-8	292	1
Miles	Elementary or K-8	325	1
Miller	Elementary or K-8	637	2
Mission View	Elementary or K-8	241	1
Ochoa	Elementary or K-8	220	1
Oyama	Elementary or K-8	391	1
Pueblo Gardens	Elementary or K-8	422	2
Robins	Elementary or K-8	567	2
Robison	Elementary or K-8	377	1
Rose	Elementary or K-8	812	3
Sewell	Elementary or K-8	302	1
Solengtom	Elementary or K-8	423	2
Steele	Elementary or K-8	371	1
Tolson	Elementary or K-8	362	1
Tully	Elementary or K-8	394	1
Van Buskirk	Elementary or K-8	403	2
Vesey	Elementary or K-8	627	2
Warren	Elementary or K-8	300	1
Wheeler	Elementary or K-8	499	2
White	Elementary or K-8	727	2

School	Type of School	Students	Teacher Technology Liaisons per campus
Whitmore	Elementary or K-8	357	1
Wright	Elementary or K-8	435	2
Dodge Magnet	Middle	409	2
Doolen	Middle	788	2
Fickett Magnet	Middle	1244	3
Gridley	Middle	739	2
Magee	Middle	599	2
Mansfield	Middle	776	2
Morgan Maxell	K-8	457	2
McCorkle	K-8	815	3
Naylor	Middle	628	2
Pistor	Middle	935	3
Safford	Middle	826	3
Secrist	Middle	590	2
Utterback	Middle	601	2
Vail	Middle	615	2
Valencia	Middle	1014	3
Roskruge	Middle	683	2

School	Type of School	Students	Teacher Teachnology Liaisons per campus
Catlina Magnet	High	819	3
Cholla	High	1626	**4**
Palo Verde	High	979	3
Pueblo	High	1439	**3**
Rincon	High	1030	**3**
Sabino	High	997	**3**
Sahuaro	High	1659	**4**
Santa Rita	High	617	2
Tucson Magnet	High	3169	**5**
Project MORE	High	69	1/2
TAPP	High	59	1/2
University	High	1014	2

Grand Total of Teacher Technology Liasons: 151

Appendix A
TCI Composite Score

The tool used to compile composite TCI scores allows for many of the individually scored items to be weighted. For example, computers overall can be weighted higher than printers or document cameras. Further in the computer score the students per computer score can be weighted differently than the weight of the computer models. Currently weighted items are students per computer, computer models (specifications), printer/scanners, whiteboards, response systems, projector/cameras, multimedia, classrooms, labs, software titles and teacher proficiency.

B	D	E	F	G	H	I	J	K	AC
TUSD	Classroom TCI	Lab TCI	Software TCI	Proficiency TCI	Overall TCI	Integration	District TCI Compare	Student Count	Students Per Computer
February 20, 2015	26%	26%	5%	42%	100%				
DISTRICT Averages	3.54	3.65	2.80	3.86	3.67				
Banks Elementary School	3.58	3.82	2.55	4.12	3.82	Integrated	Above	336	2.69
Blenman Elementary School	3.45	3.62	3.00	3.99	3.70	Integrated	Above	477	3.10
Bloom Elementary School	3.20	4.37	4.00	4.29	4.01		Above	373	2.91
Bonillas Basic Curriculum Magnet School	3.06	3.66	2.00	3.12	3.19	Racially Concentrated	Below	414	2.96
Borman Elementary School	3.57	2.82	2.10	4.08	3.51		Below	476	2.25
Borton Magnet Elementary School	3.19	3.83	2.00	3.39	3.38	Integrated	Below	455	3.92
Carrillo K-5 Magnet School	3.15	3.82	3.74	4.19	3.80	Racially Concentrated	Above	294	2.45
Cavett Elementary School	3.23	4.42	3.74	3.86	3.83	Racially Concentrated	Above	297	2.70
Collier Elementary School	3.87	4.35	2.00	4.50	4.16		Above	195	2.19
Cragin Elementary School	3.69	3.40	2.55	4.24	3.79	Integrated	Above	369	2.60
Davidson Elementary School	3.75	3.15	1.65	4.00	3.59	Integrated	Below	337	1.76
Davis Bilingual Elementary Magnet School	3.52	2.63	1.65	3.91	3.35	Racially Concentrated	Below	345	2.97
Dunham Elementary School	3.16	4.21	1.65	4.10	3.75		Above	227	3.39
Erickson Elementary School	3.65	3.48	2.55	4.35	3.84		Above	555	3.00
Ford Elementary School	4.19	3.96	1.65	4.33	4.05		Above	367	1.72
Fruchthendler Elementary School	3.64	4.10	1.85	4.22	3.91		Above	349	2.84
Gale Elementary School	3.17	2.96	1.65	4.26	3.49		Below	423	5.64
Grijalva Elementary School	3.81	3.40	3.74	3.80	3.69	Racially Concentrated	Above	696	2.50
Henry Elementary School	3.47	4.48	2.10	4.35	4.04		Above	388	2.62
Holladay Magnet Elementary School	2.80	4.09	2.55	4.20	3.72		Above	250	2.75
Howell Elementary School	3.17	3.18	3.74	3.21	3.22	Integrated	Below	358	4.02
Hudlow Elementary School	3.76	4.11	2.00	3.88	3.81	Integrated	Above	313	1.73
Hughes Elementary School	2.97	3.37	1.65	4.28	3.56		Below	359	5.98
Johnson Primary School	4.03	3.73	2.55	3.98	3.85		Above	343	1.93
Kellond Elementary School	3.77	3.62	2.10	4.04	3.75		Above	585	2.90
Lineweaver Elementary School	3.25	3.66	3.00	3.83	3.59	Integrated	Below	560	4.38
Lynn/Urquides Elementary School	3.77	3.33	2.10	3.69	3.53	Racially Concentrated	Below	600	3.70
Maldonado Elementary School	3.57	3.82	3.00	3.92	3.75	Racially Concentrated	Above	392	2.78
Manzo Elementary School	2.83	4.03	2.55	3.43	3.38	Racially Concentrated	Below	318	3.35
Marshall Elementary School	3.89	4.43	2.10	3.84	3.92		Above	282	1.93
Miller Elementary School	2.70	3.17	1.65	4.05	3.34	Racially Concentrated	Below	619	5.58
Mission View Elementary School	3.60	3.92	3.74	4.01	3.86	Racially Concentrated	Above	239	2.19

Appendix A (cont.)
TCI Composite Score

B	D	E	F	G	H	I	J	K	AC
TUSD	Classroom TCI	Lab TCI	Software TCI	Proficiency TCI	Overall TCI	Integration	District TCI Compare	Student Count	Students Per Computer
February 20, 2015	26%	26%	5%	42%	100%				
DISTRICT Averages	3.54	3.65	2.80	3.86	3.67				
Myers/Ganoung Elementary School	3.92	3.68	2.10	4.29	3.92	Integrated	Above	431	3.24
Ochoa Magnet	3.85	3.27	1.65	4.22	3.74	Racially Concentrated	Above	225	2.37
Oyama Elementary School	3.23	4.27	1.65	3.64	3.59	Racially Concentrated	Below	402	2.68
Robison Magnet	3.75	4.00	1.65	4.16	3.88	Racially Concentrated	Above	364	2.49
Sewell Elementary School	3.00	3.98	2.10	4.40	3.80	Integrated	Above	320	3.90
Soleng Tom Elementary School	3.10	3.72	1.65	4.04	3.58		Below	442	4.56
Steele Elementary School	3.90	3.29	1.65	4.08	3.70		Above	337	3.04
Tolson Elementary School	3.80	3.03	3.45	3.81	3.58	Racially Concentrated	Below	340	3.06
Tully Elementary Magnet School	2.73	3.14	2.10	3.75	3.23	Racially Concentrated	Below	378	4.97
Van Buskirk Elementary School	3.76	2.83	3.00	3.65	3.43	Racially Concentrated	Below	390	2.05
Vesey Elementary School	3.79	2.69	2.55	4.04	3.54	Racially Concentrated	Below	604	3.62
Warren Elementary School	3.41	3.63	2.00	4.28	3.76	Racially Concentrated	Above	289	2.05
Wheeler Elementary School	3.92	2.51	3.45	4.11	3.60		Below	523	2.29
White Elementary School	3.37	3.40	3.45	3.92	3.61	Racially Concentrated	Below	728	2.89
Whitmore Elementary School	4.02	2.73	1.65	3.74	3.44	Integrated	Below	368	2.14
Wright Elementary School	3.40	2.69	2.10	4.12	3.45	Integrated	Below	427	4.91
Elementary Averages	3.49	3.58	2.40	3.99	3.67			19159	3.08
Booth-Fickett Math/Science Magnet School	2.89	3.93	3.74	3.87	3.62		Below	1261	4.46
Dietz K-8 School	3.81	3.20	2.55	3.79	3.57		Below	441	3.27
Drachman (K-6) Montessori Magnet School	3.57	3.73	2.10	3.42	3.47	Racially Concentrated	Below	307	2.54
Hollinger K-8 School	3.85	4.07	4.90	3.75	3.92	Racially Concentrated	Above	578	1.91
Lawrence 3-8 School	3.74	3.92	3.45	4.30	4.01		Above	348	2.34
Mary Belle McCorkle Academy of Excellence K-8	4.05		4.00	3.89	3.95	Racially Concentrated	Above	820	1.68
Maxwell K-8 School	4.03	3.72	2.55	4.14	3.92	Racially Concentrated	Above	456	0.95
Miles Exploratory Learning Center	3.01	4.54	2.10	3.28	3.48		Below	320	1.51
Pueblo Gardens K-8	3.82	3.78	5.34	3.55	3.77	Racially Concentrated	Above	431	2.54
Roberts (at Naylor)	4.19	4.21	2.10	4.04	4.02	Integrated	Above	630	1.58
Robins K-8 School	2.70	3.61	3.45	3.70	3.40	Racially Concentrated	Below	574	6.38
Rose K-8 School	3.57	3.60	3.00	4.31	3.86	Racially Concentrated	Above	820	3.76
Roskruge Bilingual Middle Magnet School	3.12	3.60	4.03	3.82	3.59	Racially Concentrated	Below	685	3.53
Safford K-8 Magnet	3.64	4.31	4.03	3.75	3.88	Racially Concentrated	Above	843	1.53
Mary Meredith K-12	3.76	4.45	2.55	4.12	4.03	Integrated	Above	52	0.65

Appendix A (cont.)
TCI Composite Score

B	D	E	F	G	H	I	J	K	AC
TUSD	Classroom TCI	Lab TCI	Software TCI	Proficiency TCI	Overall TCI	Integration	District TCI Compare	Student Count	Students Per Computer
February 20, 2015	26%	26%	5%	42%	100%				
DISTRICT Averages	3.54	3.65	2.80	3.86	3.67				
Dodge Traditional Magnet Middle School	3.13	4.25	3.74	3.65	3.68	Integrated	Above	422	3.27
Doolen Middle School	3.54	3.89	3.00	3.69	3.67		Above	799	2.87
Gridley Middle School	3.08	3.48	3.45	3.54	3.40		Below	750	5.51
Magee Middle School	2.84	4.24	3.45	3.53	3.53		Below	593	2.94
Mansfeld Middle School	2.75	3.91	4.00	3.62	3.49	Racially Concentrated	Below	761	3.46
Pistor Middle School	3.54	4.08	3.74	3.29	3.59	Racially Concentrated	Below	930	2.46
Secrist Middle School	3.30	3.37	4.00	3.48	3.43		Below	603	4.50
Utterback Middle Magnet School of the Arts	3.86	2.48	5.00	3.68	3.48	Racially Concentrated	Below	571	1.51
Vail Middle School	3.46	2.78	3.45	3.64	3.36	Integrated	Below	642	3.36
Valencia Middle School	4.03	3.00	3.00	3.50	3.48	Racially Concentrated	Below	994	2.97
Middle Averages (MS, K-8, K-12)	3.49	3.76	3.47	3.73	3.66			15631	2.86
Catalina Magnet High School	4.29	3.97	3.74	3.47	3.83	Integrated	Above	878	1.24
Cholla High Magnet School	3.68	3.14	3.00	3.54	3.44	Racially Concentrated	Below	1723	4.91
Palo Verde High Magnet School	4.26	4.47	3.00	3.58	3.96	Integrated	Above	1069	0.88
Project MORE	4.02	4.49	2.55	3.71	3.94	Racially Concentrated	Above	77	0.34
Pueblo Magnet High School	3.99	3.91	2.55	3.67	3.76	Racially Concentrated	Above	1544	1.95
Rincon High School	4.12	4.50	3.00	3.60	3.94	Integrated	Above	1089	1.00
Sabino High School	3.56	4.07	3.45	3.61	3.71		Above	1007	2.29
Sahuaro High School	3.26	3.36	4.03	3.39	3.38		Below	1725	3.76
Santa Rita High School	4.23	4.44	2.10	3.32	3.79		Above	672	1.29
Teenage Parent High School (TAP)	3.80		2.55	4.01	3.83	Integrated	Above	68	0.00
Tucson High Magnet School	4.05	3.38	4.90	3.60	3.73	Racially Concentrated	Above	3318	1.93
University High School	3.13	0.89	1.65	3.70	2.70		Below	1038	5.22
High Averages	3.87	3.69	3.04	3.60	3.67			14208	2.07
DISTRICT Averages	3.54	3.65	2.80	3.86	3.67			48998	2.86

Appendix B

TCI Hardware & Costing

TUSD	Classroom TCI	Lab TCI	Software TCI	Proficiency TCI	Overall TCI	Integration	District Compare	New Classroom Computers	New Lab Computers	New Overall TCI	Costs
	26%	26%	5%	42%	100%						
District Averages	3.54	3.65	2.80	3.86	3.67						
Bonillas Basic Curriculum Magnet School	3.06	3.66	2.00	3.12	3.19	Racially Concentrated	Below	35	100	3.67	$185,000.00
Davis Bilingual Elementary Magnet School	3.52	2.63	1.65	3.91	3.35	Racially Concentrated	Below		26	3.70	$39,000.00
Lynn/Urquides Elementary School	3.77	3.33	2.10	3.69	3.53	Racially Concentrated	Below		57	3.67	$85,500.00
Manzo Elementary School	2.83	4.03	2.55	3.43	3.38	Racially Concentrated	Below	21	66	3.67	$120,000.00
Miller Elementary School	2.70	3.17	1.65	4.05	3.34	Racially Concentrated	Below	97	97	3.81	$242,500.00
Tully Elementary Magnet School	2.73	3.14	2.10	3.75	3.23	Racially Concentrated	Below	17	58	3.70	$104,000.00
Vesey Elementary School	3.79	2.69	2.55	4.04	3.54	Racially Concentrated	Below		22	3.74	$33,000.00
Elementary School Averages	3.49	3.58	2.40	3.99	3.67						$809,000.00
Drachman (K-6) Montessori Magnet School	3.57	3.73	2.10	3.42	3.47	Racially Concentrated	Below		40	3.67	$60,000.00
Robins K-8 School	2.70	3.61	3.45	3.70	3.40	Racially Concentrated	Below	43	65	3.81	$140,500.00
Roskruge Bilingual Middle Magnet School	3.12	3.60	4.03	3.82	3.59	Racially Concentrated	Below	42		3.70	$42,000.00
Mansfeld Middle School	2.75	3.91	4.00	3.62	3.49	Racially Concentrated	Below	68		3.67	$68,000.00
Pistor Middle School	3.54	4.08	3.74	3.29	3.59	Racially Concentrated	Below	145		3.67	$145,000.00
Valencia Middle School	4.03	3.00	3.00	3.50	3.48	Racially Concentrated	Below		105	3.67	$157,500.00
Middle School Averages (MS,K-8,K-12)	3.49	3.76	3.47	3.73	3.66						$613,000.00
Cholla High Magnet School	3.68	3.14	3.00	3.54	3.44	Racially Concentrated	Below	45	199	3.72	$343,500.00
High School Averages	3.87	3.69	3.04	3.60	3.67						$343,500.00
District Averages	3.54	3.65	2.80	3.86	3.67						$1,765,500.00

Appendix C

TCI Teacher Proficiency Scoring

B	G	I
TUSD	Proficiency TCI	Integration
February 20, 2015	42%	
DISTRICT Averages	3.86	
Banks Elementary School	4.12	Integrated
Blenman Elementary School	3.99	Integrated
Bloom Elementary School	4.29	
Bonillas Basic Curriculum Magnet School	3.12	Racially Concentrated
Borman Elementary School	4.08	
Borton Magnet Elementary School	3.39	Integrated
Carrillo K-5 Magnet School	4.19	Racially Concentrated
Cavett Elementary School	3.86	Racially Concentrated
Collier Elementary School	4.50	
Cragin Elementary School	4.24	Integrated
Davidson Elementary School	4.00	Integrated
Davis Bilingual Elementary Magnet School	3.91	Racially Concentrated
Dunham Elementary School	4.10	
Erickson Elementary School	4.35	
Ford Elementary School	4.33	
Fruchthendler Elementary School	4.22	
Gale Elementary School	4.26	
Grijalva Elementary School	3.80	Racially Concentrated
Henry Elementary School	4.35	
Holladay Magnet Elementary School	4.20	
Howell Elementary School	3.21	Integrated
Hudlow Elementary School	3.88	Integrated
Hughes Elementary School	4.28	
Johnson Primary School	3.98	
Kellond Elementary School	4.04	
Lineweaver Elementary School	3.83	Integrated
Lynn/Urquides Elementary School	3.69	Racially Concentrated
Maldonado Elementary School	3.92	Racially Concentrated
Manzo Elementary School	3.43	Racially Concentrated
Marshall Elementary School	3.84	
Miller Elementary School	4.05	Racially Concentrated
Mission View Elementary School	4.01	Racially Concentrated

Appendix C – cont.

TCI Teacher Proficiency Scoring

B	G	I
TUSD	Proficiency TCI	Integration
February 20, 2015	42%	
DISTRICT Averages	3.86	
Myers/Ganoung Elementary School	4.29	Integrated
Ochoa Magnet	4.22	Racially Concentrated
Oyama Elementary School	3.64	Racially Concentrated
Robison Magnet	4.16	Racially Concentrated
Sewell Elementary School	4.40	Integrated
Soleng Tom Elementary School	4.04	
Steele Elementary School	4.08	
Tolson Elementary School	3.81	Racially Concentrated
Tully Elementary Magnet School	3.75	Racially Concentrated
Van Buskirk Elementary School	3.65	Racially Concentrated
Vesey Elementary School	4.04	Racially Concentrated
Warren Elementary School	4.28	Racially Concentrated
Wheeler Elementary School	4.11	
White Elementary School	3.92	Racially Concentrated
Whitmore Elementary School	3.74	Integrated
Wright Elementary School	4.12	Integrated
Elementary Averages	3.99	
Booth-Fickett Math/Science Magnet School	3.87	
Dietz K-8 School	3.79	
Drachman (K-6) Montessori Magnet School	3.42	Racially Concentrated
Hollinger K-8 School	3.75	Racially Concentrated
Lawrence 3-8 School	4.30	
Mary Belle McCorkle Academy of Excellence K-8	3.89	Racially Concentrated
Maxwell K-8 School	4.14	Racially Concentrated
Miles Exploratory Learning Center	3.28	
Pueblo Gardens K-8	3.55	Racially Concentrated
Roberts (at Naylor)	4.04	Integrated
Robins K-8 School	3.70	Racially Concentrated
Rose K-8 School	4.31	Racially Concentrated
Roskruge Bilingual Middle Magnet School	3.82	Racially Concentrated
Safford K-8 Magnet	3.75	Racially Concentrated
Mary Meredith K-12	4.12	Integrated

Appendix C –Cont.

TCI Teacher Proficiency Scoring

B	G	I
TUSD	Proficiency TCI	Integration
February 20, 2015	42%	
DISTRICT Averages	3.86	
Dodge Traditional Magnet Middle School	3.65	Integrated
Doolen Middle School	3.69	
Gridley Middle School	3.54	
Magee Middle School	3.53	
Mansfeld Middle School	3.62	Racially Concentrated
Pistor Middle School	3.29	Racially Concentrated
Secrist Middle School	3.48	
Utterback Middle Magnet School of the Arts	3.68	Racially Concentrated
Vail Middle School	3.64	Integrated
Valencia Middle School	3.50	Racially Concentrated
Middle Averages (MS, K-8, K-12)	3.73	
Catalina Magnet High School	3.47	Integrated
Cholla High Magnet School	3.54	Racially Concentrated
Palo Verde High Magnet School	3.58	Integrated
Project MORE	3.71	Racially Concentrated
Pueblo Magnet High School	3.67	Racially Concentrated
Rincon High School	3.60	Integrated
Sabino High School	3.61	
Sahuaro High School	3.39	
Santa Rita High School	3.32	
Teenage Parent High School (TAP)	4.01	Integrated
Tucson High Magnet School	3.60	Racially Concentrated
University High School	3.70	
High Averages	3.60	
DISTRICT Averages	3.86	

Appendix D

TCI National Center for Education Statistics

Institute of Education Sciences

Published April 28, 2010 http://nces.ed.gov/pubs2010/2010034.pdf page 4 Table 1, highlighted text

Table 1. Percent of public schools that have instructional computers with various characteristics, ratio of students to instructional computers with Internet access, and ratio of instructional computers in classrooms to number of classrooms, by school characteristics: Fall 2008

School characteristic	Instructional computers with Internet access		Instructional computers in classrooms (excluding laptops on carts)			
	Percent of schools that have instructional computers with Internet access	Ratio of students to instructional computers with Internet access[1]	Percent of schools that have instructional computers in classrooms	Ratio of instructional computers in classrooms to number of classrooms[2]	Percent of schools that have laptop computers on carts	Percent of schools that have computers available for students to take home
All public schools	100	3.1	97	3.0	58	6
Instructional level[3]						
Elementary	100	3.2	98	3.2	55	4
Secondary	100	2.9	96	2.6	65	13
Enrollment size						
Less than 300	100	2.2	94	2.8	51	10
300 to 999	100	3.2	98	3.0	57	5
1,000 or more	100	3.2	98	2.9	76	7
Community type						
City	100	3.4	97	3.0	60	5
Suburban	100	3.2	97	3.1	62	5
Town	100	2.7	99	3.1	56	8
Rural	100	2.9	96	2.7	53	8
Region						
Northeast	100	2.8	99	3.0	64	6
Southeast	100	2.9	98	3.3	61	5
Central	100	3.1	96	2.6	55	7
West	100	3.5	97	3.0	54	7
Percent combined enrollment of Black, Hispanic, Asian/Pacific Islander, or American Indian/ Alaska Native students[4]						
Less than 6 percent	100	2.8	97	2.6	52	7
6 to 20 percent	100	3.0	98	2.9	62	7
21 to 49 percent	100	3.2	98	3.0	58	5
50 percent or more	100	3.2	96	3.2	58	6
Percent of students eligible for free or reduced-price lunch						
Less than 35 percent	100	3.1	97	2.8	62	6
35 to 49 percent	100	3.2	96	2.7	54	6

4

Appendix D (cont.)

TCI National Center for Education Statistics

Institute of Education Sciences

Published April 28, 2010 using data from fall of 2008

http://nces.ed.gov/pubs2010/2010034.pdf @ page 5 Table 2, highlighted text

Table 2. Percent of the computers in public schools that are used for instruction, percent of instructional computers with various characteristics, and percentage distribution of the mobility and location of instructional computers, by school characteristics: Fall 2008

School characteristic	Percent of computers that are used for instruction	Percent of instructional computers that:			Percentage distribution of instructional computers by mobility and location				
					Laptop computers on carts	Not laptop computers on carts			
		Are desktops	Are less than 1 year old	Have Internet access		In classrooms	In computer labs	In library/ media centers	Other location
All public schools	91	76	15	98	14	51	27	6	2
Instructional level[1]									
Elementary	91	77	15	98	13	56	23	6	2
Secondary	92	76	17	99	16	43	33	7	1
Enrollment size									
Less than 300	90	74	14	98	15	45	31	7	1
300 to 999	91	77	15	98	13	54	24	7	2
1,000 or more	92	76	16	99	15	48	30	6	1
Community type									
City	91	76	15	97	14	53	25	6	2
Suburban	92	75	15	99	14	54	24	6	1
Town	92	78	17	98	14	51	28	7	#
Rural	91	78	16	98	14	46	32	7	2
Region									
Northeast	92	69	16	99	20	50	22	6	2
Southeast	92	77	17	98	13	55	25	6	1
Central	91	79	14	99	14	45	32	8	1
West	91	80	14	97	11	54	27	6	2
Percent combined enrollment of Black, Hispanic, Asian/Pacific Islander, or American Indian/ Alaska Native students[2]									
Less than 6 percent	91	79	15	98	13	45	33	8	1
6 to 20 percent	91	76	16	99	15	48	29	7	1
21 to 49 percent	91	76	14	99	13	53	25	6	2
50 percent or more	92	76	17	97	14	55	23	6	2
Percent of students eligible for free or reduced-price lunch									
Less than 35 percent	91	74	16	99	16	48	28	7	1
35 to 49 percent	91	79	16	98	13	49	29	7	2
50 to 74 percent	92	77	14	98	12	55	25	6	1
75 percent or more	91	78	15	97	13	56	22	5	3

Appendix E

Augmented Support Plan & Technology Integeration Matrix

The District recommends the following professional development to increase teacher proficiency across the district with an augmented teacher support plan for those teachers who score below the district average. Note: Table below illustrates the topics covered in each course.

Course Offering	Topics Covered
Successmaker	Introduction, basic navigation and operation, teacher and student role and responsibilities. Online Assistance Transferring Students Adding New Groups Adding Users to a Group Removing Groups User Types Adding New Users Deleting a Student
Advanced Successmaker	Reporting, Intervention cycle, answer patterns and standards mastery. Import Feature Setting Up files Messages Areas of Difficulty Report, Cumulative Performance Reports, Last Session Reports, Prescriptive Scheduling, Student Performance Report, System Enrollment an Usage, Math Strand Matrix
Promethean Board	Introduction, board orientation, introduction to flipcharts ActivClassroom, Foundational Tools, Resource Browser, Page Browser, Notes Browser, Presentation tools, Math tools,
Advanced Promethean Board	Creating and downloading flipcharts, advanced tools, importing files, Dice, Calculator, Ruler, Protractor, Compass, XY Origin, Object Browser, Pen Modifier Tool, Page Turn Effects, Equation Editor, Page Extender Tool, Exporting files, Camera Tool, Shape Tool, Desktop tools, Studio Calculator, Primary Calculator, Insert Link,

Course Offering	Topics Covered
	Customizing ActivInspire, Using Existing Digital Media, Handwriting, Shape Recognition, Screen Recorder
District Intranet	Navigation, search, forms location
Document Camera	Operation, lesson development, Categorizing concepts, timelines, Active Reading Proofreading Math manipulatives timers, Show and tell, Maps, Saving images, Daily Oral Language Math Manipulatives i.e. compass ruler, thermometer, base ten blocks, etc. Demonstrate how to use a calculator Show students how to set up math problems using notebook paper Math workbook pages Displaying and creating graphs for science experiments and dissections.
Sharepoint	Introduction, navigation, downloading documents, uploading documents, using calendar, edit personal information
Advanced Sharepoint	Create a folder, SkyDrive, create a calendar, Create a column, Create a task list, Add a new task, embed video, create a view, edit a view, Sharepoint in the Cloud
Office 365	Introduction, where to save files, “cloud” concept, how to access files
Advanced Office 365	Excel-functions, charts, pivot tables Word- Formatting, hyperlinks, charts PowerPoint- Linear and nonlinear, embedding objects
Online Assessment	Introduction, how to give online assessment, interpreting data, how to utilize data to inform teaching
Web 2.0 tools	Utilize wikis, twikis, blogs and podcasts in instruction
Classroom Websites	Create, maintain and expand classroom website utilizing district platform already in place

Technology Integration Matrix Targeted Support Areas

Technology Integration Matrix Level	Menu Options	Delivery Methods
Teachers who score below district average on matrix	SuccessMaker, Promethean Board, District Intranet	In person small group and one on one as scheduled via district professional development portal and approved by district senior staff and Teacher Education Association
Teachers who score at district average on matrix	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, SharePoint, Office 365	In person small group, online where available and one on one as scheduled via district professional development portal and approved by district senior staff and Teacher Education Association
Teachers who score above district average on matrix	Advanced SuccessMaker, Advanced Promethean Board, Document Camera, Advanced Sharepoint, Districtwide productivity software i.e. Advanced Office 365, Online Assessment	In person small group and one on one as scheduled via district professional development portal and approved by district senior staff and Teacher Education Association

*** Note (The above Augmented teacher support strategy is contingent upon approval of district senior staff and TEA (Tucson Education Association))**

Appendix F

TCI Teacher Proficiency Survey

1. At what school do you teach?

2. What grade level do you teach?

K-5

6-8

9-12

3. Please list the types of technologies that you feel are essential to your success in the classroom.

4. How often do you use computers to deliver curriculum?

Daily

Weekly

Bi-Weekly

Monthly

Seldom-Never

NA (This technology is not available)

5. How often do you use an interactive whiteboard to deliver curriculum?

Daily

Weekly

Bi-Weekly

Monthly

Seldom-Never

NA (This technology is not available)

6. How often do you use a document camera to deliver curriculum?

Daily

Weekly

Bi-Weekly

Monthly

Seldom-Never

NA (This technology is not available)

7. How often do you use presentation software (i.e. PowerPoint, ActivInspire) to deliver curriculum?

Daily

Weekly

Bi-Weekly

Monthly

Seldom-Never

NA (This technology is not available)

8. How often do your students use computers in class or in a lab?

Daily

Weekly

Bi-Weekly

MonthlySeldom-Never

NA (This technology is not available)

9. When your students are using computers, what is most often the purpose?

Practicing a skill (i.e. Vocabulary exercises)

Strategic Intervention

Research (internet query, online resources)

Creating Projects

10. How comfortable are you with using technology for classroom instruction?

Somewhat comfortable

Comfortable

Very comfortable

11. I classify my ability to design and assess lessons with technology resources for students as:

Not quite there yet

Beginner with support

Confident on my own

Capable of teaching others

Capable of publishing to the Internet

Appendix G

Sample of a Question from TCI Software Survey

TUSD

2014 TUSD Software Survey

Instructional Software (Listed, How Often)

Pick how often you use each instructional software title. Or skip a row for "Never". (A to P)

	Never	Daily	Weekly	Occassionally	Monthly	Every Semester
Accelerated Math						
Accelerated Reading						
Achieve 3000						
ALEKS						
ATI Galileo						
Exam view						
Imagine Learning						
Language of Literature						
Plato						

Pick how often you use each instructional software title. Or skip a row for "Never". (R to W)

	Never	Daily	Weekly	Occassionally	Monthly	Every Semester
Read 180						
Rosetta Stone						
Study Island						
SuccessMaker						
SuccessNet						
System 44						
Teacher Express						
Virtual Reading Coach						
Waterford Early Learning						

Prev Next

Powered by SurveyMonkey
Check out our sample surveys and create your own now!

[i] Gray, Lewis Educational Technology in Public School Districts: Fall 2008
National Center for Education Statistics Institute of Education Sciences

Notices

4:74-cv-00090-DCB Fisher, et al v. Tucson Unified, et al

LEAD,PROTO,STD,TERMED

U.S. District Court

DISTRICT OF ARIZONA

Notice of Electronic Filing

The following transaction was entered by Brammer, J on 2/27/2015 at 1:38 PM MST and filed on 2/27/2015

Case Name: Fisher, et al v. Tucson Unified, et al
Case Number: 4:74-cv-00090-DCB
Filer: Tucson Unified School District
Document Number: 1778

Docket Text:
NOTICE re: Filing of Tucson Unified School District No. 1's Multi-Year Technology Plan by Tucson Unified School District . (Attachments: # (1) Exhibit 1)(Brammer, J)

4:74-cv-00090-DCB Notice has been electronically mailed to:

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