



INFORMATION TECHNOLOGY PLAN

School District of Jefferson

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Part 1: Background

District Information

The School District of Jefferson encompasses an area of 94 square miles, including the City of Jefferson and the townships of Aztalan, Farmington, Hebron, Jefferson, Oakland, Concord, Sullivan, and the Village of Sullivan. The School District operates five schools: three elementary schools (PreK-5), one middle school (6-8) and one high school (9-12), with a combined enrollment of over 1,900 students. The district's student population is made up of 82% White, 16% Hispanic, and 2% Black students. Thirty-eight percent of our students come from economically disadvantaged environments, 9% of our students are second language learners, and 14% of students are identified with a disability. More information can be found at: <http://wisedash.dpi.wi.gov/>

District Mission

The School District of Jefferson, in partnership with our community, provides an environment of excellence and opportunity for all students to achieve their dreams.

District Vision

The School District of Jefferson is a student-centered organization which meets or exceeds the needs and expectations of its students, parents, and community. The District is recognized locally, statewide, and nationally as a district where “student learning and achievement” and “outstanding character development” are paramount.

The culture of the District is one in which all students are challenged to attain a maximum level of performance commensurate with their individual abilities. Student learning is individualized through early and formative intervention to ensure that high performance is encouraged and rewarded. Poor effort and failure are not acceptable options.

The District is a recognized leader in the use of innovative, research-validated teaching and learning methodologies. Using extensive collaboration among staff, students, and parents, professional learning communities are a vital part of the learning experience. The staff is among the “best in class” in quality of preparation and delivery of services, as evidenced by student performance and professional credentials. The number of certified staff attaining the highest level of professional certification (Wisconsin Master Teacher or National Board for Professional Teaching Standards) increases annually. Overall student performance, as measured by No Child Left Behind (NCLB) and state and district standards, improves annually. In addition, other measures of outstanding student performance, such as the number of National Merit scholars, Kohl scholars, Advanced Placement students, and students who score above national norms on the ACT college admissions test, continue to increase.

The district is a place where quality is pervasive and self-evident. The community and others recognize the district's exceptional quality and thereby generously support the need for essential physical and fiscal resources. A formal “Continuous Quality Improvement” process is deployed, which ensures that high-quality systems and processes are initiated and maintained. These quality measures are used by the district to gain a competitive advantage in securing external supplemental resources.

The School District of Jefferson is synonymous with excellence. It is a place where hard work and exemplary character are expected and modeled by students and staff. Character and work ethic are valued as much as intelligence, social aptitude, and athletic ability. This is the Jefferson Way.

School District of Jefferson Priorities for 2013-2018

Priority One: Student Learning

Objective 1:

Increase reading achievement growth as measured by:

- a. Attainment of a state assessment growth score of .5% over five years
- b. Attainment of a MAP grade level growth scores at or above the national growth target and maintain an average grade level RIT score at or above the 50th percentile

Objective 2:

Increase Career and College Readiness Skills (CCRS) as measured by the composite score of the ACT.

Priority Two: Student Enrollment

Objective 1:

Facilitate a net gain (growth) in open and overall enrollment by the end of the 2017-18 school year.

Priority Three: 21st Century Skills for Student Learning

Objective 1:

By June 2017-18, stakeholder participation (staff, students* and parents*) in a survey evaluating access to instructional technology will indicate 70% satisfaction AND indicate an overall 10% growth in student technology skills.

*Baseline to be established 2014-15

Priority Four: Budget/Operations

Objective 1:

Study/Analyze our financial resources in order to operate with a balanced budget.

Priority Five: ~~Workforce Development~~ School Climate and Culture

Objective 1:

Maintain stakeholder satisfaction with regard to school climate by obtaining an average of 80% or higher agreement on each of the five areas that comprise the district climate survey: continuous improvement, school safety, equity/inclusion, communication and climate/character.

Part 2: Technology Vision and Goals

District Technology Council

The District Technology Council is an advisory council charged with the development of this Technology Plan spanning the academic years, 2015-2018. The council is comprised of representatives from across the five schools in our district.

Sue Baker	Science Teacher, Jefferson Middle School
Jenna Baumhofer	Grade 5 Teacher, East Elementary
Kaylee Cardinal	Grade 3 Teacher, Sullivan Elementary
Melanie Dehnert	Special Education Teacher, Sullivan Elementary
Steve Dinkel	Assistant Principal, Jefferson High School
Mike Howard	Principal, West Elementary School
Barb Johnson	District Director of Curriculum, Instruction and Technology
Cheryl Kenders	District Library Media Specialist
Jason Poeppel	District Information Technology Director
Amanda Price	District Technology Integrator
Andrew Schwei	World Language Teacher, Jefferson High School

Technology Vision

The School District of Jefferson Technology Planning Committee has developed the following vision statement to guide its work in creating a three-year strategic plan for technology implementation:

As described in the district mission, The School District of Jefferson, in partnership with our community, provides an environment of excellence and opportunity for all students to achieve their dreams. Within this context, we believe that technology is a tool for learning that expands our instructional repertoire and is the vehicle that maximizes the capacity of all teachers and learners. It is the vision of the School District of Jefferson that students be engaged in a stimulating academic environment and a challenging curriculum that is student-centered and focused on preparing them for their future. Specifically, we envision that technology is available and effectively supported for all students and staff:

- *To improve student learning*
- *To increase student engagement in the learning process*
- *To close the digital divide by increasing technology literacy in all students*
- *To build 21st Century skills (e.g., critical thinking, reasoning, global awareness, communication skills, information literacy, productivity, and creativity)*
- *To prepare students for college and careers (e.g., increasing students' abilities to succeed in a 21st century work environment through teaming, technology fluency, and high productivity)*

It is our intention that this vision will remain constant over the course of our plan and that it will guide the day-to-day and year-to-year implementation of technology across the School District of Jefferson.

Technology Goals

The District's technology goals focus on providing students, families, educators, and administrators with a vision for preparing every student for the college or career of their choice upon graduation from the district. The plan hinges on innovative technology integration to provide opportunities to students for individualized instruction, collaboration, creation, and communication. Professional development for

the educator, access to resources and system leadership support is essential to achieving the vision. The following goals specify how the District will support teaching and learning:

Goal 1: Increase Student Achievement

Students and staff will utilize current and emerging media and technology resources to support effective implementation of the Common Core State Standards (CCSS) and 21st Century skills.

Action	Responsible	Timeline	Evidence of Success
Research model technology literacy curriculums	Curriculum Director	July-December 2015	Sample technology curriculums and supporting documents
Identify learning targets for students K-12 to utilize media and technology resources that support learning CCSS, 21st century skills and CCRS	Curriculum Director	January-June 2016	Academic targets published and communicated
Infuse professional development for teachers to embed academic and digital citizenship learning targets into curriculum delivery	Curriculum Director Technology Integrator Building administrator	2016-18	Teacher demonstrates embedded use of academic and digital citizenship learning targets in curriculum delivery

Goal 2: Effective Teaching and Learning Practices

The School District of Jefferson will ensure that all students have high quality educators who utilize best practices and researched-based teaching methods to improve student learning.

Action	Responsible	Timeline	Evidence of Success
Research/communicate models for providing time for teacher collaboration and professional learning within the school calendar/day	Technology Integrator Curriculum Director	Spring 2016	Communication of options and recommendations to administrative team
Provide teacher training on concepts of digital citizenship, digital identity, and responsible use of technology and social media	Technology Integrator Curriculum Director Building Administration	2015-18	<ul style="list-style-type: none"> ○ Records of teacher training ○ Observation/anecdotal record of teacher modeling and explanation to students
Each Jefferson educator will embed the use of 21st century learning skills into instructional delivery, including the use of technology	Curriculum Director Building Administration Technology Department Library Media Staff	2015-18	<ul style="list-style-type: none"> ○ Educator Evaluation: ○ Survey data
Develop teacher leaders to facilitate training and guidance around instructional strategies and integration of technology	Technology Integrator District Administration Building Administration	2015-18	Active technology leader at each of five schools
Provide strategic, ongoing professional development offerings- equitably distributed among levels (HS, MS, Elementary)-to support and assist teachers in preparing students with technology skills needed for college and careers	Curriculum Director Technology Integrator Building Technology Leaders Building Administration	2015-18	Calendar of internal professional training opportunities and documentation of communications/resource dissemination
Provide resources and support to assist teachers to integrate technology into teaching and learning	Technology Integrator District Administration Building Administration	2015-18	Survey data related to support and training

Goal 3: Access to Information Resources and Learning Tools

The District will provide sound curricular programs with sufficient resources that meet the needs of its stakeholders and assure that no student is denied reasonable access to technology resources.

Action	Responsible	Timeline	Evidence of Success
Increase variety and location of devices students can access for learning to include tablets and computers in the classroom, library, and stationary labs	Technology Department Board of Education Building Administrators	2015-18	Satisfaction to access increased as measured by survey
Student use and learning are prioritized for decision making related to classroom arrangement of technology tools	Technology Department Building Administrators Classroom Teacher	2015-18	Teacher survey (pre-post)

Goal 4: Support Systems and Leadership

The District will provide annual funding for essential aspects of the technology program including staff, technology infrastructure, professional development, consultant services, technical support, and other key areas.

Action	Responsible	Timeline	Evidence of Success
Maintain/Update policies to current business and technology standards	Technology Director Administrators	2015-18	Annual review of policies related to technology
The district's technology budget adequately considers total cost of ownership when determining replacement of infrastructure, hardware, and software on a scheduled rotation	Technology Director	2015-18	Budget reports
Ensure a skilled, responsive, and innovative workforce that keeps current with evolving business critical technologies	Technology Director Administrators	2015-18	Training certifications and records of professional development
Implementation of IT and industry best practices	Technology Department	2015-18	Recorded system down time
Provide high quality customer service	Technology Department	2015-18	System reports and survey data

Goal 5: Library and Media Services

District provided library services and support will be supported by research and strengthened to improve opportunities for students that are relevant, engaging, and use current instructional and informational technologies.

Action	Responsible	Timeline	Evidence of Success
Ensure flexible access to library media center facilities, resources, and services for students and staff	District Library Media Specialist District Administration Building Administration	2015-2018	Anecdotal evidence and calendars provide evidence that community members, students, and staff have access to needed information and resources
Continue resource sharing among district library media centers and public library	District Library Media Specialist District Administration Building Administration Jefferson Public Library	2015-2018	Anecdotal evidence and request list provide evidence of resource sharing
Maintain a balanced collection of print, non-print, and digital resources	District Library Media Specialist District Administration Building Administration	2015-2018	Collection analysis tool provides detailed overview of library media collections
Research, evaluate, and execute district wide access to a platform(s) that provides digital content to meet patrons' needs	District Library Media Specialist District Administration Building Administration	2015-2018	Digital content is accessible for students and staff
Design a cohesive library media website. Website at each building to house links to educational sites for students, teachers and families	District Library Media Specialist Building Administration	2015-2016	Evidence of a library media website for each of the five schools
Participate in a professional social networking site to stay current with latest research and best practices	District Library Media Specialist	2015-2018	Professional social network site has been accessed on a weekly basis throughout school year

Goal 6: Communication and Outreach

Through the use of communication tools and outreach, stakeholder satisfaction with the School District of Jefferson will increase as evidenced by enrollment and satisfaction.

Action	Responsible	Timeline	Evidence of Success
Using websites and/or social media platforms, the district and individual buildings will communicate current and relevant information related to teaching, learning, events, and responsibilities	Site appointed Digital Communication Managers Technology Integrator Building Administrators District Administrators	2015-18	Record of random checks for relevant information on each site at least one time per month
Using a variety of technology applications and tools, classrooms and departments will communicate timely and relevant information to students and their families related to teaching and learning, events, and responsibilities	Instructional Staff Building Administrators Technology Integrator Technology Department	2015-18	Electronic evidence of building and classroom communication; parent feedback; climate survey data
Engage and educate parents about student use of technology tools for learning	Curriculum Director Building Principals Technology Integrator Building Technology Leaders	2015-18	Documentation of communications/resource dissemination, and attendance records
Research ways to provide students access to technology applications and tools outside of the school day	Instructional Staff Building Administrators Library Media Specialist	2015-18	Communicate recommendations based on research to administrative team

Part 3: Supporting Information

History

Prior to **1998** the extent of the District technology infrastructure was minimal. All district locations were isolated with non-interconnected via a wide area network (WAN). Each building had very limited network cabling and services. Telecommunications were also limited in the amount of phone accessibility for teachers and staff.

From **1998 to 2001** the district focused on bringing technology into the school district. Everything from the backbone network to classroom access was implemented.

- Implemented Novell Directory Services
- Implemented Mitel Analog Phones
- Established network/internet access in every classroom
- Installed fiber to all district buildings in Jefferson (East, Middle School, High School, West)
- Installed a T-1 for Sullivan Elementary to connect to the high school
- Created district file share
- Created district and school web pages to represent each site

During **2002 to 2005**, the District continued to improve and grow the technology infrastructure along with improving access to computers in the classrooms and labs.

- Hardware refresh in 8 of the 11 computer labs
- Add additional T-1 for Sullivan Elementary
- Upgrade the backbone network devices
- Upgrade and add teacher workstations

In **2006 to 2008** the district focused on utilizing technology to improve operational processes along with implementing more technology into classrooms.

- Added to the use of Skyward to include Human Resources
- Implemented LunchBox for Food Services
- Added to the use of PowerSchool to include the use of PowerTeacher Gradebook with parent access
- Implemented Email for Staff
- Implemented online delivery of individual student courses (virtual school, JEDI network)
- *Smartboard* technology was made available to over 50% of classrooms in the district
- Upgrade network hubs to switches
- Created teacher web pages

During **2009 to 2012** the use and infrastructure of technology continued to advance. A new high school was also under construction within this time frame.

- Redesign of the Data Center Network
- All new cabling in the High School
- Implemented wireless in the High School and Middle School

- Implemented Power over Ethernet (PoE) to deliver electrical power over LAN cabling to networked devices
- Laptop carts were deployed in each building
- Ipads piloted and one cart of 30 purchased for East and West Elementary
- *Smartboard* technology was made available in every district classroom

From **2013 to 2015** the district focused on implementing more devices into the network along with ensuring the network could handle the workload. Two additional employees were hired.

- Increase wireless access in all three elementary schools
- Upgrade the Data Center Network equipment
- Upgrade the internet connection to 1Gb
- Hire a second Computer Technician to help with the day to day operations and improve the response\resolve time of Information Technology (IT) requests
- Hire a Technology Integrator to enrich and support teaching and learning by strengthening the technology skills of students, teachers and staff.
- Change Directory services to Active Directory
- Implement Security Camera in the High School and East Elementary
- Deploy additional Windows laptop carts in the high school and middle school
- Migrate email to Google Apps for Education
- Deploy Chromebooks and Android Tablets

Needs Assessment

Library Collections

During 2015, the *Follett TitleWise Collection Analysis* was used to evaluate each library collection. This tool allowed each catalog to be digitally extracted from *Alexandria*, the circulation system, and analyzed using nationally recognized methods of collection maintenance. Strengths and weaknesses of each collection were identified. The American Association of School Librarians' national survey, *School Libraries Count! 2012*, reports that the average number of books per school library stands at 13, 517 with an overall average copyright date of 1995.

Jefferson High School

The Jefferson High School collection analysis was based on the enrollment figure of 634 students. The total number of holdings was determined to be 16409 items with an average of 25.88 items per student. The collection has an average copyright date of 1983. Many areas are well balanced or are showing improvement over time. The nonfiction and reference collections are supplemented by the annual purchase of subscription databases.

Jefferson Middle School

The average copyright date of the Jefferson Middle School collection is 2000. There are 11060 holdings in the collection resulting in an average of 26.22 items per student based on a school population of 413. Analysis results indicate that the collection is very strong and well balanced. The nonfiction and reference collections are supplemented by the annual purchase of subscription databases. One area of consideration includes eBooks for recreational reading.

East Elementary

The East Elementary library collection consists of 16,940 holdings averaging 45.38 items per student with an average copyright date of 1990. The student population is currently at 368 students. A review of the analysis indicates that the collection as a whole is balanced. Nonfiction purchases focusing on additional STEAM materials is under consideration.

Sullivan Elementary

The Sullivan Elementary collection has 12,748 holdings with an average of 56.20 items per student based on a student population of 226. The average copyright date is 1995. The collection is balanced. One area of focus needing material updates is the natural sciences, especially space related items.

West Elementary

The West Elementary collection contains 16,013 holdings with an average of 52.44 items per student based on a student population of 305 students. The average copyright date is 1993. Analysis results indicate that the easy-to-read and fiction collections are very strong and the collection as a whole is well balanced. One area of concern to be addressed is the need for additional bilingual materials.

Library Media Collection Detailed Analyses

[Follett TitleWise Analysis for Jefferson High School](#)
[Follett TitleWise Analysis for Jefferson Middle School](#)
[Follett TitleWise Analysis for East Elementary](#)
[Follett TitleWise Analysis for Sullivan Elementary](#)
[Follett TitleWise Analysis for West Elementary](#)

Library Online Resources

Jefferson High School

- BadgerLink
- Gale Biography in Context
- Gale Science in Context
- Gale Opposing Viewpoints
- Gale U.S. History in Context
- Literature Resource Center

Jefferson Middle School

- BadgerLink
- CountryReports
- ProQuest eLibrary
- SIRS Discoverer

East, Sullivan and West, Elementary Schools

- BadgerLink

District Technology Survey Summary Data

Technology surveys were created by the District Technology Coordinator to evaluate stakeholder (staff, students and parents) satisfaction for access to instructional technology and an overall growth in student technology skills. The survey data will measure the district's success with meeting the objectives of District Priority Three: 21st Century Skills for Student Learning

2013-2014

In March of the 2013-14 school year, the certified teaching staff in the district responded to a series of survey questions.

2013-14 Certified Teaching Staff Data Collection

Respondents:

Grade Level	Teachers	Percentage	Grade Level	Teachers	Percentage
Kindergarten	8	57.14%	Grade 3	5	35.71%
Grade 1	4	28.57%	Grade 4	4	28.57%
Grade 2	2	14.29%	Grade 5	5	35.71%

Grade Level	Teachers	Percentage
Grade 6	11	18.64%
Grade 7	8	13.56%
Grade 8	10	16.95%
Grades 9 and 10	17	28.81%
Grades 11 and 12	13	22.03%

2013-14 Staff Satisfaction for Access to Instructional Technology

Grade Level	Percentage of Access Satisfaction
K-2	50
3-5	54
6-12	40

2013-14 Staff Rating of Student Technology Skills

Grade Level	Average Proficiency Reported
K-2	Basic Operations: 47 Digital Citizenship: 17 Research: 35
3-5	Basic Operations: 68 Digital Citizenship: 61 Research: 57
6-12	Basic Operations: 42 Digital Citizenship: 52 Research: 50

2014-15 Technology Surveys

Background:

The objective in the 2014-15 school year was to establish baseline data in the areas of satisfaction with access to instructional technology and student skills in using technology for the remaining stakeholder groups - student and parents. Parent and student surveys were created in November 2014 and reviewed by the District Technology Council (DTC). The members of the DTC recommended the survey be re-implemented with certified teaching staff in the district to align with the timing of parent and student surveys. Acting on this recommendation, certified teachers responded to a survey between December 2014 and January 2015. Students in grades 6-8 responded to a survey in December 2014. Students in grades 3-5 and grades 9-12 responded to a survey in January 2015. Parents and staff were invited to respond to a survey between January and February 2015.

2014-15 Certified Staff Data Collection

Respondents:

Grade Level	Teachers	Percentage	Grade Level	Teachers	Percentage
Kindergarten	5	38.5%	Grade 3	4	26.7%
Grade 1	5	38.5%	Grade 4	5	33.3%
Grade 2	3	23.0%	Grade 5	6	40%
		100%			100%

Grade Level	Teachers	Percentage	Grade Level	Teachers	Percentage
Grade 6	8	40%	Grade 9	26	86.7%
Grade 7	5	25%	Grade 10	28	93.3%
Grade 8	7	35%	Grade 11	29	96.7%
		100%	Grade 12	28	93.3%
Percentage exceeds 100% because a HS teacher serves multiple grades					

2014-15 Staff Satisfaction for Access to Instructional Technology and Training

Grade Level	Percentage	Access Comments	Training Comments
K-2	63%	Needs: Faster speed, reliable, connectivity and computers, student login process simplified	Desired training: Smartboard use, apps for learning
3-5		Needs: more reliable working computers on carts with longer battery life (Chromebooks work well); time for set-up	Desired training: Smart technology (board and response systems); how to effectively implement apps in instruction
6-8	72%	Needs: more consistent access in the classroom (i.e., stations in the classroom) reliable computers on carts	Desired training: GAFE in language arts; Smartboard application; Google apps for Education, technology in choral music; a menu of technology offerings to choose from
9-12	62%	Needs: Chromebooks for Science Department, equipment replacement more frequently, working headsets, more communication with status of technology fixes	Desired training: Smartboard, apps for learning, Google Suite, attendance at conferences to enhance work of Technology integrator (train the trainer)

2014-15 Staff Rating of Student Technology Skills

Grade Level	Average Proficiency Reported
K-2	<ul style="list-style-type: none"> • Basic Operations: 44% • Creation and Collaboration: 67% • Research: 50% • Digital Citizenship: 55%
3-5	<ul style="list-style-type: none"> • Basic Operations: 70% • Creation and Collaboration: 87% • Research: 68% • Digital Citizenship: 65%
6-8	<ul style="list-style-type: none"> • Basic Operations: 74% • Creation and Collaboration: 68% • Research: 67% • Digital Citizenship: 63%
9-12	<ul style="list-style-type: none"> • Basic Operations: 61% • Creation and Collaboration: 68% • Research: 65% • Digital Citizenship: 61%

2014-15 Student Data Collection

Respondents:

Grade Level	Teachers	Percentage	Grade Level	Teachers	Percentage
Grade 3	63	29%	Grade 6	110	30%
Grade 4	69	32%	Grade 7	131	35%
Grade 5	85	39%	Grade 8	131	35%
		100%			100%

Grade Level	Students	Percentage
Grades 9	166	31%
Grades 10	139	26%
Grades 11	122	22%
Grade 12	116	21%
		100%

2014-15 Student Satisfaction for Access to Instructional Technology

Grade Level	Percentage of Access Satisfaction	General Comment Themes
3-5	61%	<ul style="list-style-type: none"> No comments requested at this level
6-8	64%	<p><u>Instructional Enhancements</u> Students would like:</p> <ul style="list-style-type: none"> access to technology in every class rather than having to get a pass to go to the library to be prepared for High School helpful websites or links to learn on their own to communicate with staff via email for homework help <p><u>Access/Resource Enhancements</u> Students would like:</p> <ul style="list-style-type: none"> better quality devices (Faster and don't fall apart) access to tablets access to their cell phones

9-12	63%	<p><u>Instructional Enhancements</u></p> <p>Students would like:</p> <ul style="list-style-type: none"> • to have some sort of an online classroom • the ability to access all of their assignments from the web along with having access to email the teachers with questions they have <p><u>Access/Resource Enhancements</u></p> <p>Students would like:</p> <ul style="list-style-type: none"> • to have access to their cell phone in every class. One comment was "You could use your phones to look up a person or a place to research and assignments you could just look up a word if you don't know what it means." • to have more access to technology in every classroom • more opportunities to access computer labs • more access to the library before and after school • access to tablets • access to quality (reliable) devices • to feel prepared for college
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2014-15 Student Rating of Technology Skill Proficiency

Grade Level	Average Proficiency Reported
3-5	<ul style="list-style-type: none"> • Basic Operations: 76% • Creation and Collaboration: 69% • Research: 73% • Digital Citizenship: 71%
6-8	<ul style="list-style-type: none"> • Basic Operations: 76% • Creation and Collaboration: 70% • Research: 77% • Digital Citizenship: 76%
9-12	<ul style="list-style-type: none"> • Basic Operations: 71% • Creation and Collaboration: 76% • Research: 79% • Digital Citizenship: 75%

2014-15 Parent Data Collection

Respondents:

Grade Level	Parent Responses	Percentage
K-2	59	31%
Grades 3-5	46	24%
Grades 6-8	73	39%
Grades 9-12	72	38%

Home Access to Technology

Question	Yes	No
I have a home computer	178 (95%)	10 (5%)
I have Internet access at home	182 (97%)	6 (3%)
I have a mobile device with Internet	169 (90%)	19 (10%)
My child has a personal email account outside of school	98 (52%)	90 (48%)
My child has a personal social networking site (e.g., Facebook, Twitter)	79 (42%)	90 (48%)
My child uses the computer to play games	145 (77%)	43 (23%)

Technology Access and Use for Learning

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
My student routinely has access to technology at school for learning	52 (28%)	117 (62%)	13 (7%)	6 (3%)
My student has strong technology skills	46 (24%)	84 (45%)	45 (24%)	13 (7%)
My student is encouraged to use technology at school for school projects	31 (16%)	110 (59%)	35 (19%)	12 (6%)
My student has access to a computer outside of school for school work	99 (53%)	70 (37%)	12 (6%)	7 (4%)
My child frequently uses technology for homework	26 (14%)	72 (38%)	64 (34%)	26 (14%)
I assist my child in using a computer for school projects	16 (9%)	83 (44%)	65 (35%)	24 (13%)

Parent Response to Needs

Question	Once a day	Once a week	Once a month	Never
How often do you visit a teacher's webpage for information about your student's learning?	4 (2%)	35 (19%)	56 (30%)	93 (49%)

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
I would be interested in technology training for parents at school.	16 (9%)	63 (34%)	76 (40%)	33 (18%)
I would support additional funding for technology used for learning in school.	48 (26%)	102 (54%)	28 (15%)	10 (5%)

Question	5	4	3	2	1
Among all needs facing schools today, where would you rank technology? (Scale 1-low and 5-high)	45 (24%)	75 (40%)	48 (26%)	13 (7%)	7 (4%)

Research

Research articles were selected to provide guidance to the District Technology Council to further define the focus for developing goals to move the School District of Jefferson forward in our use of technology to improve student learning. Key findings from a review of current research related to school use of technology tools is synthesized here:

1. Student Achievement

- a. The full learning return from a technology investment in schools is dependent on three key levers: 1) the triangulation of content, 2) sound principles of learning, and 3) high-quality teaching (Lemke and Reifsneider, 2009).
- b. 1:1 computing does not necessarily lead to an increase in student achievement. In a review synthesizing the results of four multi-school studies of K-12 implementing 1:1 computing, participation in 1:1 programs was associated with increased use of technology by teachers and students; increased student engagement, and modest increase in student achievement (Bebell and O'Dwyer, 2010).

2. Effective Teaching and Learning

- a. To successfully integrate technology in schools, teachers must feel prepared to integrate technology into their instruction. In one survey, only a quarter of the teachers surveyed felt prepared and tended to use technology only to present information to students. With sustained professional development, teachers were more likely to use technology in ways that promoted learner engagement, inquiry, and self-directed learning (Law and Yuen, 2006).

3. Support Systems and Leadership

- a. Higher implementation of technology was associated with a cultural shift in the school. School cultural shift was attributed to committed leaders, greater teacher buy-in, preliminary professional development, and a commitment to transformation of the student (Bebell and O'Dwyer, 2010).

4. Library Media Services

- a. The library schedule is important because it determines access to materials, the librarian, and to the library facility. There are three options for school library scheduling: fixed, flexible and hybrid. Working with the building principal and a team of people to study the best option is recommended when working to provide the ultimate access possible. (Harvey, 2014)
- b. E-content in libraries is becoming an expectation of the student consumer. Not only do we see our students preferring to access consumer products in music, film, photo, and social activities (iTunes, Netflix, Spotify, Instagram, Twitter) in digital form, but several important studies have measured similar preferences and movement in the eContent universe, such as from JISC, ebrary, Pew (Sanborn, 2013).

5. Communication and Outreach

- a. Social networking is providing a means for involving parents, especially in places with socioeconomic and language disparities. Twitter feeds, Facebook pages, text messages sent in multiple languages are used to give parents information, news and instant updates related to their student's school and learning (Fleming, 2012).
- b. When parents do not have an option for connecting digitally, some schools are providing them with access to the technology in their own homes, as well as providing education sessions that show parents how to use the technology to become more engaged in their child's education (Fleming, 2012).

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