Technology Change Management Report

Lynchburg City Schools

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Executive Summary

The Lynchburg City Schools in Virginia, hereinafter referred to as "LCS" or "the District", contracted with Educational Collaborators to conduct an external assessment of LCS's Technology Program relative to best practices for information technology in schools. Educational Collaborators collected background materials from LCS through the use of a self-study tool and phone calls, a two-day on-site visit with focus groups and interviews, and surveyed district and building leaders, teaching staff, and parents. The results of the assessment will assist in the formation of goals and objectives for a four-year 1:1 implementation plan.

LCS is small town community in central Virginia. Parents in focus groups characterized the community as having southern hospitality which values families and good place to raise a family. The community prides itself on the schools and not-for-profit service. They also conveyed that the school system is a REASON to be and stay here. They mentioned that students have a personal connection with each teacher and teachers and principals are wonderfully helpful. They also said that the district provides good services for special needs children.

As LCS has demonstrated by its initial actions, a 1:1 initiative involves changes at all levels of the institution and affects all the constituents. Developing and communicating the expectations of the 1:1 program as well as policies and procedures are essential for successful implementation. The district leadership conveyed a uniform articulated vision and were very collaborative and welcoming throughout this process. These attributes will serve the district well as they move forward with the technology initiatives.

With the LCS mission statement being "Every Child, By Name and By Need, to Graduation" and the five areas of *Excellence in LCS*, the school district has set the stage for success with a 1:1 initiative. The goals for excellence in Academics, Behavior, Culture, Operations and Personnel are the foundation for all technology initiatives expected to improve student achievement while increasing district efficiency and effectiveness. LCS has operationalized the technology effort supporting academics by adopting LCS-ONE. According to the LCS Website, in the 2014-15 school year,

> "all 9th-grade students at both E.C. Glass and Heritage high schools will receive an LCS-issued Chromebook. Chromebooks will be turned in at the end of the school year and reissued the following school year. In the 2015-2016 school year, an additional three grade levels at each high school will be supplied with Chromebooks. By the end of the 2015-2016 LCS school year, all high school students in Lynchburg City Schools will have a device. In the academic years that follow, LCS will continue with the plan to provide Chromebooks to all students in grades 4 through 8."

It is the intent of this project's process and report to advance LCS's course for meeting the 21st Century needs of students through the LCS-ONE initiative, as LCS takes the next steps to ensure a quality education while providing a personal computing device for students in grades 4 through 12 and increasing access to technology for students in grades K-3.

Project Overview

Goals

- Ensure that Lynchburg City Schools stakeholders are all "on the same page" before launching the 1:1 program
- Identify the concerns of various groups and individuals and create ways to measure the reality of their concerns
- Create a common consensus of the goals being sought and the reasons for achieving them
- Review and document infrastructure changes necessary to meet goals
- Lay the foundation for a data driven program and develop a longitudinal assessment strategy
- Facilitate a data driven platform selection based on the culture and academic objectives of the district
- Develop a comprehensive PD plan to help accomplish the defined goals
- Significantly reduce the research and planning burden on faculty and staff
- Apply best practices to the program within the context of the schools' unique culture and environment
- Significantly reduce the likelihood of costly implementation challenges
- Uncover key issues not previously considered
- Develop appropriate levels of consensus around your project plan.

The findings in this report are organized into the following broad categories

- Goal Review
- Infrastructure Review
- Communications Review
- Rollout Review
- Academic Development Review
- Professional Development Review

The major findings include:

Technology Goal Review

Recommendations for Best Practices matched to Current Six Goals

The following recommendations are included in the report. A table for tracking and recording the accomplishment of each of these has also been included. This table can be used as it is or modified by the district in order to better meet the needs of the district. This work is tied directly to the current instructional and strategic planning efforts of Lynchburg with the intent of dovetailing the measurement of the technology initiative with other metrics being examined for overall student achievement.

1. Provide targeted instruction that utilizes the most current, dynamic, and interactive content to meet the needs of all students.

- add documentation to all evaluation forms
- provide resources to teachers for classroom use through digital analytics
- increase online textbook adoptions

2. Establish a culture that fosters Communication, Collaboration, Critical Thinking and Creativity to equip our students and staff with 21st century skills.

- increase and monitor tech credits for all staff
- implement tools for collaboration - learning management system, collaboration software and stations in two high schools
- provide additional opportunities for differentiated instruction and learning
- improve organizational and time management skills of students and staff

3. Establish a culture that fosters positive student engagement, where all students are encouraged to become life-long active learners and creators.

- increase use of e-portfolios for student work
- decrease in behavioral referrals and absentee rate
- continue the use of the school culture survey
- implement specified walk-through form to document a snapshot of the type of technology and usage in the classroom at any given point in time
- provide means of instruction for student participation outside of the classroom

4. Leverage technology data tools to inform and drive instruction.

- provide access to technologies that will maximize data analysis and drive instruction
- train teachers to interpret collected data

5. Improve student preparedness for high stakes testing.

- Increase the utilization of teacher and division-made online assessments for benchmarking with technology enhanced items
- Prepare questions which adapt to the changing SAT, ACT, and AP test format

6. Establish a culture of increased stakeholder involvement through collaboration and communication.

- Initiate mandatory parent and staff meetings prior to students receiving devices at which time requirements and expectations are delineated
- Hold community meetings to provide updates on the implementation of LCS-ONE
- Provide parent trainings regarding technology integration strategies

Infrastructure Review

Recommendations for Best Practices and Gaps in Practices

Switches - To support future classroom applications in the schools it is recommended the district review switches to support 1 GB connectivity to the desktop and wireless access points. The district should also complete the upgrade with 10 GB uplinks to the core and 1 GB to all sites. Plan and budget for ongoing infrastructure upgrades. The infrastructure provides the backbone for the user experience and cannot be considered as a one-time expenditure.

Wireless technology. - The wireless system needs to become more ubiquitous. A high density wireless system should be designed, standardized, and universally installed throughout the district. The staff and students will benefit instructionally with a pervasive well-designed wireless system. The new design needs to incorporate plans to support the 1:1. Consider unifying the wireless to the use of one manufacturer reducing the service and maintenance. Ensure classroom density for access points is provided before the launch of a 1:1 per school building.

Servers and SAN. - The district is in a good position with their server virtualization. Most districts strive for over 80% of the servers virtualized. As the district reviews options for future server replacement, review costs and benefits of cloud options. A hybrid cloud/in-house solution may be desirable.

Backups - It is recommended that the District research offsite replication for their backups. This is critical for enterprise applications such as the student information system, user files, and email. Options for Cloud backups should be investigated and compared with costs and benefits.

System Monitoring, **Remote Management, and Deployment Tools -** LCS is currently in a reactive mode monitoring their network. The district needs a comprehensive monitoring solution. LCS needs to ensure that all servers, switches, and UPS are actively monitored.

Internet and Security - Establish a routine for periodic checks of Internet use to proactively keep bandwidth at optimum levels for users. Monitor and upgrade internet usage in the future. To accommodate utilization spikes, normal utilization should not exceed 70% of capacity. Annual planning for bandwidth should also take into consideration anticipated new Internet programming and resources.

Disaster Recovery - Monitor UPS at the building level to protect server uptime. Create a run book of step-by-step instructions to recover business critical applications in the event of disaster. The Run Book is to define recovery steps by application group with a focus on minimizing data loss and downtime due to system failures or network interruption or total site disaster at the primary data center facility.

Support - The Instructional Technology Coordinator and the DARTS should establish routine meetings with the staff development and curriculum departments and instructional coaches. The district needs to improve support ratios for IT. In addition to meeting with the Visioning Committee, the Director of IT should meet regularly with building principals and district leadership to have conversations about instructional needs, adoptions and developments. Expand the implementation of a student internship program.

Communications Review

Recommendations for Best Practices and Gaps in Practices

Visioning Committee – LCS formed its Visioning Committee to lead the district through the implementation process. The committee is comprised of stakeholders across the district. The committee should continue to meet throughout the implementation process. They should solicit input from building stakeholders throughout each phase to gather information regarding areas which are working well and areas of concern.

Here is a list of specific communication pieces by phase for consideration and development:

Discovery -

- AFAQs – Anticipated Frequently Asked Questions. An effort to answer those questions from the constituents that may or may not be brought up prior to implementation.
- Program Mission – Include relationship to overall school mission. For instance, the LCS-ONE is directly aligned with the mission of “Every Child, By Name and By Need, to Graduation”.
- Constituent Presentation – The Why’s of a 1:1 Program.

Direction -

- Program Goals – In addition to having identified six main goals for the 1:1 implementation, this process with LCS has resulted in strategies to accompany each goal.
- FAQs – AFAQs plus additions from the Discovery Phase
- Updates to existing handbooks – In the very least, beginning in 2014-15, staff and student/parent handbooks should provide a brief overview of LCS-ONE and include the website at which one can obtain access to the FAQs and other information.

Implementation -

- **Rollout Presentation** – Presentation to all students and parents in a required joint meeting so students know what the parents know and the parents know what the student knows about the proper use and care of the specific technology device.
- **Rollout Documents:**
    - **Responsible Use Policy** – a detailed document outlines appropriate and responsible use of the school's technology
    - **Device condition assessment** – a document for the parents to agree to the condition of all devices and components issued to the student
    - **Insurance Purchase** – if available, the option for parents to purchase insurance to cover damage and/or loss of a school owned device

On-Going -

- **Parent Education Technology Presentation** – Keeping parents informed about all technology in use by their students including how to monitor activity, assistance with home use requirements, guidance for use at home plus addressing any concerns parents may have as these technology devices and tools become more and more pervasive.

Rollout Review

Recommendations for Best Practices and Gaps in Practices

Orientations – Conduct orientations for students and parents. This is especially important the first year of implementation.

FAQs – Develop FAQs that are posted online and can be updated as issues arise. Many of the questions for this document can come from Q&A sessions with parents on deployment nights.

Student Assistance – Students are often times eager to help other students (and staff). Utilizing students to provide technical support throughout the school year would possibly allow LCS to not increase staffing (or need as many).

AUPs – LCS's current Acceptable Use Policy (AUP) should be re-written to include all of the new issues that will arise with a 1:1 program. EC has gathered several different policies that should help with revising your policy. You can find these sample policies in Appendix 4.

Academic Review

Recommendations for Best Practices in Academic Areas

Student Email. EC recommends that students be rolled into the school's email system. Student email should be phased in with the LCS-ONE implementation.

Learning Management Systems. EC recommends that the district further develop an LMS to support student and staff learning as well as serve as a district curriculum repository.

Curriculum Resources. EC recommends that LCS create a unified technology curriculum approach within its implementation of Virginia State Standards and local curriculum plans. The district LMS can provide standardized access and collaboration for the collection of these materials. EC recommends that LCS:

- Charge content area instructional leaders with the responsibility of examining their content area curriculum and pedagogy and identifying what technology is used and what 21st century skills are taught.
- Align instructional resources and curriculum.
- Map electronic resources to district curriculum.
- Develop a process to collaborate across the district to capture effective teacher resources and update them regularly. This collection of documents should be available online, minimally within a shared server or cloud-based repository or more extensively within a LMS or curriculum mapping software.

ISTE NETS Standards. The International Society for Technology in Education's (ISTE) NETS also provides additional frameworks for instructional technology planning with standards for administrators, teachers, students, technology coaches, and computer science educators. EC recommends that LCS:

- Consider the potential of Tech Integration Groups (TIG). If expectations and accountability are to be instituted, stakeholders will need a means to have a voice and to feel engaged in the process. Tech Integration groups should be charged with determining the minimum expectations, identifying content, establishing standards, and creating rubrics or descriptors that define and exemplify innovative teaching and curriculum. The TIG design can be interwoven with the existing PLC work.

Digital Citizenship. EC recommends that the district develop a Digital Citizenship charter and review existing curriculum to ensure that the activities support students and staff in developing and sustaining sound digital citizenship. While IT needs to be a key player in these conversations, it is important the final policy decisions be made by academic leaders with IT providing the necessary technical and professional development to support those decisions.

Adequate Resources to Support Technology. EC recommends that as part of LCS's efforts at supporting technology it considers how technology can *reduce* teacher time spent on certain activities. This can be achieved through the more strategic and mindful use of existing technologies such as email to the use of new technologies such as learning management systems that can automate the distribution and collection of student assignments, testing, and can even provide basic feedback on written assignments.

Professional Development Review

Recommendations for Best Practices in Professional Development

It is important that **purpose** is kept at the forefront of technology integration and related professional development. The professional development should be concept–based, focusing on sound pedagogy for the 21st century, and the technology should always be directly related to goals and objectives for teaching and learning. It is not about the tool—it is about what is best for teaching and learning.

With the data collected and information provided through conference calls, surveys, and a site visit, EC has created a prospective "Three Year Staff Development Plan" for professional development. This plan is a guide for professional development that can be modified and adjusted as need to fit the calendar year, specific training opportunities, and participant opportunities and skill levels. A summary of the overall recommendations is below, and the specifics for each year can be viewed in the body of the report.

Collaborative Approach: PD planning and implementation should be a collaborative joint responsibility between the curriculum and instruction departments and the instructional technology branch. Leaders and coaches from the separate departments should be meeting frequently to structure, design, and lead the training. Curriculum instructional coaches and DARTS should be visible and leading the trainings. Another resource to consider and include with ongoing support includes library media staff.

Alignment with Goals and Continuous Improvement: On an annual basis, LCS should review the previous year's goals, collect the recommended data, evaluate and measure the progress related to the overall goals, and develop the next professional development step based on the data. It may be necessary to modify the goals for a given year based on the analysis of the data. This is an ongoing, three–step process: planning, instruction/implementation, and assessment.

Effective Delivery Model as Embedded and Ongoing: Professional development workshop experiences should include separate learning experiences for participants with different skill levels, when appropriate, to assure maximum engagement and success. Staff development sessions should not just be "how to" sessions but rather be designed as "make and take" sessions. Staff should be afforded time within the confines of their time together with the trainer to construct lessons incorporating the new technology. Faculty should be provided ongoing support in which this becomes an exciting and engaging culture of student–centered learning.

PD for All: Administrative staff members and leaders should participate in faculty training opportunities as well as separate professional development experiences that have a specific focus on principals and leadership staff.

Professional Growth Plan: EC recommends the development of a professional growth plan that includes the integration of education technology tools and strategies for each faculty member.

Technology Goal Review

"Every Child, By Name and By Need, to Graduation" requires LCS to align its five areas of *Excellence to the* school district's 1:1 initiative, otherwise known as LCS-ONE. The goals for *Excellence* in Academics, Behavior, Culture, Operations and Personnel are the foundation for all technology initiatives expected to improve student achievement while increasing district efficiency and effectiveness. With data from the focus groups and surveys, LCS has demonstrated a belief in the importance to outline common technology initiative goals that align the input of various constituencies.

This process has resulted in LCS agreeing to six major goals and associated strategies to begin accomplishing the goals in the first three years of 1:1 implementation.

Current Goals and Strategies

1. Provide targeted instruction that utilizes the most current, dynamic, and interactive content to meet the needs of all students.
   - add documentation to all evaluation forms
   - provide resources to teachers for classroom use through digital analytics
   - increase online textbook adoptions

2. Establish a culture that fosters Communication, Collaboration, Critical Thinking and Creativity to equip our students and staff with 21st century skills.
   - increase and monitor tech credits for all staff
   - implement tools for collaboration - learning management system, collaboration software and stations in two high schools
   - provide additional opportunities for differentiated instruction and learning
   - improve organizational and time management skills of students and staff

3. Establish a culture that fosters positive student engagement, where all students are encouraged to become life-long active learners and creators.
   - increase use of e-portfolios for student work
   - decrease in behavioral referrals and absentee rate
   - continue the use of the school culture survey
   - implement specified walk-through form to document a snapshot of the type of technology and usage in the classroom at any given point in time
   - provide means of instruction for student participation outside of the classroom

4. Leverage technology data tools to inform and drive instruction.
   - provide access to technologies that will maximize data analysis and drive instruction
   - train teachers to interpret collected data

5. Improve student preparedness for high stakes testing.
   - Increase the utilization of teacher and division-made online assessments for benchmarking with technology enhanced items
   - Prepare questions which adapt to the changing SAT, ACT, and AP test format

6. Establish a culture of increased stakeholder involvement through collaboration and communication.
   - Initiate mandatory parent and staff meetings prior to students receiving devices at which time requirements and expectations are delineated
   - Hold community meetings to provide updates on the implementation of LCS-ONE
   - Provide parent trainings regarding technology integration strategies

Goals and Suggested Criteria and Measurements

It is important to not only get everyone on-board with the goals, but to also keep everyone on the same page with effective leadership and continuous improvement. Results from the survey data (Appendix 1) revealed the following priorities regarding 1:1 evaluation data:

	Teachers	Principals	District Staff	Parents
Improved Student Achievement	48%	31%	50%	31%
Improved Student Engagement	26%	15%	27%	15%
Improved Preparation for College and Career	12%	41%	10%	41%
Improved technology access for students and families	14%	13%	13%	31%

Keeping in mind the fact that LCS stakeholders are primarily interested in improved student achievement, with principals and parents also being very interested in the 1:1 initiative increasing student preparedness for college and career, it is critical that the goals and strategies of LCS-ONE be measured, recorded and reported regularly to the public. With student engagement and technology access for students and families also being of interest, these items should also be discussed as the district reports progress with this initiative.

The following table is provided for district and school administrators to track progress and success in each of the goals and associated strategies established for the initiative. Focus groups indicated the need to have a system in place that is aligned with other district efforts to track overall progress with student achievement; therefore this is an approach to beginning to operationalize accountability across the district.

The two left columns list goals and provide strategies for achieving those goals; the third column identifies the alignment with LCS's 5 areas of expected *Excellence*, which can thus be used for articulating and aligning forms of measurement; and the fourth column provides suggested ways in which progress can be observed, evaluated and/or measured.

#	Goal	5 Areas of Excellence	Evidence for Progress and Completion
Goal 1	Provide targeted instruction that utilizes the most current, dynamic, and interactive content to meet the needs of all students.	Academics, Personnel	*STUDENT OUTCOME EVIDENCE: Record how students access and use online learning resources. When applicable, use student achievement data to determine improvements.*
Strategy 1.1	Add documentation to all evaluation forms		1. Year 1 - Change evaluation forms for teacher, leader and staff 2. Year 2 – Educate all about and use new evaluation forms. 3. Year 3 - Subsequent annual reviews and update documents, as needed.
Strategy 1.2	Provide resources to teachers for classroom use through digital analytics		1. Review and evaluate multi-year district budgets to meet this need 2. Track purchases and adoptions, including professional development provided.
Strategy 1.3	Increase online textbook adoptions		Track purchases Year 1 through Year 3 that meet these requirements.

Goal2	Establish a culture that fosters Communication, Collaboration, Critical Thinking and Creativity to equip our students and staff with 21st century skills.	Academics, Behaviors, Culture, Personnel	*STUDENT OUTCOME EVIDENCE: Record how students, staff and leaders rate on the NETStandards and monitor the changes from Year 1 – Year 3.*
Strategy 2.1	Increase and monitor tech credits for all staff		Document and chart tech credits earned by staff by building each year. (Make this a point of emphasis with building leaders as a discussion for each teacher's evaluation.)
Strategy 2.2	Implement tools for collaboration - learning management system, collaboration software and stations in two high schools		1. Track use of learning platforms and management systems for classroom procedures (such as submitting assignments) and classroom communications (such as calendars, assignments, and expectations). 2. Survey teachers about usage and PD needed to increase usage.
Strategy 2.3	Provide additional opportunities for differentiated instruction and learning		1. Use classroom observation data to record evidence of this. 2. Survey teachers about changes in instruction and PD needed to increase usage. 3. Survey students.
Strategy 2.4	Improve organizational and time management skills of students and staff		Use classroom observation data to record evidence of this.

Goal 3	Establish a culture that fosters positive student engagement, where all students are encouraged to become life-long active learners and creators.	Academics, Behaviors, Culture	*STUDENT OUTCOME EVIDENCE: Record observations of student engagement. When applicable, use student achievement data to determine improvements.*
Strategy 3.1	Increase use of e-portfolios for student work		1. Adopt or create a process for "common storage" of e-portfolios and then track the number of e-portfolios by grade level from Year 1 – Year 3 of implementation.
Strategy 3.2	Decrease in behavioral referrals and absentee rate		Continue the use of the school culture survey and record changes from baseline year of 2013-14 through implementation Years 1, 2 & 3.
Strategy 3.3	Implement specified walk-through form to document a snapshot of the type of technology and usage in the classroom at any given point in time		1. Create and adopt classroom walk-through form in Year 1. 2. Train and use classroom walk-through form, and begin recording building-wide and system-wide data.
Strategy 3.4	Provide means of instruction for student participation outside of the classroom		1. Record & report educational opportunities with 1:1 that occur beyond the daily classroom 2. Consider polling students (and parents) as to how the devices are being used outside the classroom.

Goal 4	Leverage technology data tools to inform and drive instruction.	Academics, Behaviors, Culture, Personnel	*STUDENT OUTCOME EVIDENCE: Record how teachers access and use technology tools for data analysis. When applicable, use student achievement data to determine improvements.*
Strategy 4.1	Provide access to technologies that will maximize data analysis and drive instruction.		Track purchases Year 1 through Year 3 that meet these requirements.
Strategy 4.2	Train teachers to interpret collected data		1. Record PD opportunities for teachers, including on-site PLC work. 2. Track changes in student achievement related to data-driven decisions. 3. Consider connecting this to existing tech credits system.

Goal 5	Improve student preparedness for high stakes testing.	Academics, Culture, Personnel	*STUDENT OUTCOME EVIDENCE: Use student achievement data to determine improvements.*
Strategy 5.1	Increase the utilization of teacher and division-made online assessments for benchmarking with technology enhanced items		1. Record and track changes from Year 1 through Year 3 of online assessments created by staff. 2. Track student usage of these assessments.
Strategy 5.2	Prepare questions which adapt to the changing SAT, ACT, and AP test format		Track in a matrix by grade level and/or content area the questions that meet these criteria.

Goal 6	Establish a culture of increased stakeholder involvement through collaboration and communication	Culture	*OUTCOME EVIDENCE: Record how stakeholders (staff, students, parents, community members) access and use technology tools for collaboration and communication.*
Strategy 6.1	Initiate mandatory parent and staff meetings prior to students receiving devices at which time requirements and expectations are delineated		1. Document dates, times and attendance of mandatory meetings, both face-to-face and electronically-accessible venues. 2. Consider issuing a brief survey for feedback from parents and staff on these.
Strategy 6.2	Hold community meetings to provide updates on the implementation of LCS-ONE		Record dates, times and attendance of updates, as well as documenting access of these online at the district Website.
Strategy 6.3	Provide parent trainings regarding technology integration strategies		1. Document dates, times and attendance of trainings. 2. Consider issuing a brief survey for feedback from parents. 3. Consider archiving these at the Website for future parent reference and asking parents to take a short survey after watching the electronic version.

Infrastructure Review

Emphasis on technology to support student learning will undoubtedly require the institution to re-evaluate its current IT infrastructure to be sure it can handle the incremental load that will be placed on it. Teachers will quickly become disenchanted with the program if the equipment and network are not reliable. This presents unique challenges to school IT staff, such as demands on server maintenance, infrastructure and wireless capacity, data security, and storage capacity. Lynchburg IT department has made great strides to build a stable district network.

Beyond building an infrastructure for today's use, LCS needs to look ahead and build for tomorrow's use. There is an increasing need to provide mobility and for resources that are, and will continue to be, increasingly cloud-based. Management tools need to be considered that will provide for the ever changing environment. It is recommended the district over-plan and over-build capacity today to support the increasing demands of the future.

The ongoing support of technology is as important as the design and installation of the physical infrastructure. If systems are not maintained or users have to wait for support and installation, they lose confidence that they can dependably use the resources that have been made available. LCS users report that IT staff have good customer service and dedication but are frustrated with the amount of support they have available at the building level.

Switch and Wireless Infrastructure

Lynchburg City Schools is comprised of 17 school buildings. The school division shares many technology services with the city of Lynchburg. The central data center is housed at the city-owned Information Technology Center (ITC) building. District buildings are connected via a shared city fiber redundant mesh ring network via 10 GB connections.

The school division has recently upgraded wiring within the buildings. They are ensuring all schools MDF and IDF[1] are connected via fiber cable. They are also upgrading their copper lines to Cat 5e. Most IDFs are connected via fiber with 1 or 10 GB uplinks. There are a few remaining areas with slower connections which will be upgraded during the LCS-ONE implementation. LCS has standardized in the use of Layer 2 Cisco switches throughout the entire network. The district still has a mix of 1 GB and 100/1000 Mbps connection to the desktop. Most MDF in the buildings are in shared district spaces and have unmonitored UPS protection. The exception is at the ITC. The ITC is protected with cooling, fire suppression, a power generator, and security.

To support future classroom applications in the schools it is recommended the district review switches upgrading to Layer 3 switches to support 1 GB connectivity to the desktop and wireless access points. The district should also complete the upgrade with 10 GB uplinks to the core and 1 GB to all sites. This will ensure there is plenty of bandwidth to support upcoming 1:1 traffic. Plan and budget for ongoing infrastructure upgrades. The infrastructure provides the backbone for the user experience and cannot be considered as a one-time expenditure.

[1] The Main Distribution Frame (MDF) houses the electronics and cabling terminations for the network. The Intermediate Distribution Frame, or IDF, is a wiring rack located between the MDF and end users.

The district supports two wireless networks. Currently, Aruba is installed at Heritage HS and Aerohive is supported in the remaining schools. Both wireless types are running N protocol. The district had a site survey for the Aruba network but not the Aerohive. There are two controllers, one of Aruba and one for Aerohive. The systems send email alerts to technicians. IT staff are considering converting EC Glass HS to Aruba. Buildings have ranges of 2-6 shared classrooms per access points. Focus group interviews conveyed a frustration on the lack of sufficient wireless access. The IT staff understand that the access point density is not sufficient to support 1:1 activity. The IT team is installing saturated access per classroom in advance of LCS-ONE. They are also evaluating the two different vendors to determine the best manufacturer to support the LCS-ONE program. The wireless network is on its own VLAN. The district has setup guest wireless but it is throttled to 10 Mbps access.

The wireless system needs to become more ubiquitous. A high density wireless system should be designed, standardized, and universally installed throughout the district. The staff and students will benefit instructionally with a pervasive well-designed wireless system. The new design needs to incorporate plans to support the 1:1. The following recommendations should be considered as part of the solution.

a. Consider unifying the wireless to the use of one manufacturer reducing the service and maintenance.
b. Implement as a minimum 802.11n Access Points and preferably 802.11ac Wave 1 through centralized control on premise or cloud based to support High Density education environment.
c. Ensure classroom density for access points is provided before the launch of a 1:1 per school building.
d. Implement unified wired and wireless network management tools.
e. Plan for load balancing across Access Points in areas of high density such as testing or centralized congregation areas (ie cafeterias, gymnasiums, theaters, board rooms).

Network Management, Security, Routing Tools, and Disaster Recovery

LCS uses PRTG and Syslog to monitor the network. The City uses Solar Winds for the Core. The IT staff is considering the user of SCCM for additional server monitoring. They currently stock extra switches of all brands.

The following tools are used by IT staff.

- Anti-virus - Currently using Symantec antivirus. All machines are subject to malware removal. LUA policy prevents most installations of bad software. The district will be moving to Microsoft Forefront this summer.
- Firewall and Content Filter – The firewall is shared with the city. The current firewall has not been meeting the district expected needs and will be upgraded by fall. Barracuda is used for the web filter. Pornography/adult content is filtered for all users. Video streaming is blocked for students. Additionally, advertisement and malware is blocked. IT staff may research a local video server and will possibly add this feature by fall.
- The district firewall is a single point of failure.
- O/S Updates – Software updates are pushed out via Windows Update Services and will be moving to SCCM.
- Assignment of admin rights – They use Group Policy Manager on our Domain Controllers to

distribute policies.

- Appropriate VLAN design has been established to segregate traffic between buildings, devices, and protocols.
- The district Uninterruptable Power Supply (UPS) would last 30 minutes and are setup for all MDF. Some are monitored.
- The district does not have a written disaster recovery plan.
- The district has some tools to document network uptime.

LCS previously was in a reactive mode monitoring their network. They have recently added some monitoring tools. They need to ensure they have a comprehensive monitoring solution.

a. LCS needs to ensure that all servers and switches are actively monitored. Ensure monitoring configurations are installed on systems. Network and server monitoring will decrease downtime of network and increase productivity. The solution should include options for email and text alerts. Monitoring can also provide trends to help you plan future growth needs. Monitoring systems provide proactive systems support for user reliability.

b. Implement tools such as Microsoft's System Center Operations Monitor (SCOM) to monitor servers and applications.

c. Establish and document procedures for server updates.

d. The management tool suite should also have the ability to monitor systems and user based tracking of internet and mobile management to monitor devices on the network.

e. A mobile device management (MDM) tool should be introduced to simplify application deployment, onboarding, selective wipe, data loss prevention, etc. for mobile devices.

In addition the district disaster recovery plan needs to

f. Monitor UPS at the building level to protect server uptime.

g. Fully document all in-house written apps to ensure support and maintenance are available in the absence of developers.

h. Create a run book of step-by-step instructions to recover business critical applications in the event of disaster. The Run Book is to define recovery steps by application group with a focus on minimizing data loss and downtime due to system failures or network interruption or total site disaster at the primary data center facility.

i. Fully document the BC/DR architecture and plan including run books which outline the procedures to be executed as a result of an event. Predefine the interval in which the documentation will be updated and a full test executed as these plans without regular testing usually fall short when they are most needed.

Storage Area Network, Servers, and Backups

LCS has a combination of Dell and HP servers. They do not have any cluster servers. The district makes use of VMWare and Microsoft Hyper-V for server virtualization and has virtualized 90% of their servers. They do not use anything to document uptime for server-based services. Focus group interviews conveyed some frustration on server down time.

The district does not make use of SAN storage but is considering this for the future. They have a 40 Terabyte NAS, everything else is local disk. The district backup is noncentralized. Acronis is installed locally on district servers. All jobs get copied over to the NAS which is located at the ITC. The NAS is not

backed up at this time. User files are stored on the NAS as well as local disk. When Heritage HS is rebuilt the district will have a second data center and will create a redundant off site backup system. The LCS Iseries box which currently houses the student information and HR/Finance systems is backed up to tape and tapes are taken off site. The Destiny library system is backing up to its own box as well as the NAS. Staff and HS students have "H" drive and elementary students have a generic login with drive storage in a shared folder. The district has implemented some storage quotas. Email is set at 200 Mbps. Student document storage is set at 50 Mbps and staff are set at 200 Mbps. VPN access has been setup for staff access to the files remotely. Students are not setup yet to provide this option.

The district is in a good position with their server virtualization. Most districts strive for over 80% of the servers virtualized. As the district reviews options for future server replacement, review costs and benefits of cloud options. A hybrid cloud/in-house solution may be desirable. SAN storage should be evaluated. Total cost of ownership should be compared with cloud based solutions.

It is recommended that the District research offsite replication for their backups. This is critical for enterprise applications such as the student information system, user files, and email. Options for Cloud backups should be investigated and compared with costs and benefits. Test backups monthly. For any very critical data, setup a backup plan that will backup that content every few hours.

Internet and Security

According to interviews and survey results (Question 10), teachers in Lynchburg are concerned about the speed of the Internet. More than 70% responded with a concern in this area. A 200 Mbps connection from Lumos serves as the district Internet connection. The connection from Lumos goes into the ITC building. The district capacity is running about 40% continuously and spikes to 100% most every day. Focus group interviews relayed that the Internet runs slow especially in the middle of the school day. The district will be moving to a 1 GB connection in July 2014. The connection will be shared, 80% for the school division and 20% city. The district is also considering a 2nd provider to provide redundancy. Parents conveyed a concern regarding student Internet access away from the district. All student provided devices will be filtered both on and off the network.

LCS uses Barracuda for Internet filtering. Question 10 of the survey asks teachers and administrators concerns they have regarding integrating technology in the classroom. Staff have concern (teachers 72.61%) and (principals 78.57%) regarding student Internet safety. Filtering decisions are typically made by the Instructional Technology Coordinator. They block Facebook and access to outside email. Staff have access to YouTube but not students. Focus group interviews conveyed frustration on how locked down systems were, the lack of user control, and the strength of Internet filtering settings

It is critical for the LCS-One implementation that staff and student have sufficient Internet bandwidth. To provide the access, LCS should consider

a. A campus that uses technology strongly should have at least 150-200MB of internet per 500-750 devices. Sluggish internet connections in the classroom can create a negative attitude towards the technology. Teachers must be able to rely on the technology daily.
b. Establish a routine for periodic checks of Internet use to proactively keep bandwidth at optimum levels for users. Monitor and upgrade internet usage in the future. To accommodate utilization spikes, normal utilization should not exceed 70% of capacity. Annual planning for bandwidth

should also take into consideration anticipated new Internet programming and resources.

c. If possible add a secondary internet connection via local cable company to provide redundancy. Install a firewall/router that can load balance these multi-connections.
d. Further investigate Internet filtering configurations to ensure settings are defined to meet educational expectations, that proxy and cache settings are maximized for efficiency, and tracking tools are in place. Content filtering decisions should be established at the instructional administration level and enforced at the IT level.

Email, Student Information System, and LMS

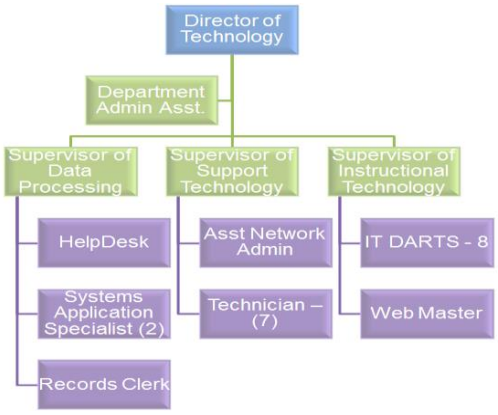
LCS uses Microsoft Exchange 2007 for staff email. Students do not presently have email. During focus group interviews, staff conveyed a need for student email to support the 1:1. The Exchange server is hosted on premises in the data center. Staff email is accessible remotely via Mail Transport and Outlook Web Access. The district is migrating to hosted, Google-provided Gmail. Secondary students will be provided emails in the fall of 2014. A Moodle server has been setup within the district but is minimally used by staff. The district is moving to a new student information system, Infinite Campus, for this next school year.

Equipment and Classroom Devices

LCS currently has approximately 5,700 desktop devices, 20% of which are under warranty. They also have 2,700 laptops, 85% under warranty. The district supports approximately 500 tablet devices. All classrooms are equipped with projectors with speakers. Most classrooms have an interactive board. Document cameras are available for approximately 25% of the classrooms.

Support

The technology department has 26 individuals. The Director of Technology oversees employees in 3 areas: Administrative Applications (3), Instructional Technology (10), and Support Technology (12). Previously the district reduced the Data Analysis Resource Teacher (DARTS) from 16 to 8 and moved the staff out of the building. Previously the DARTS provided technical and instructional support. This year they are to focus on instructional support. The district plans to add two more technical staff for the 2014-15 school year. Focus group interviews indicated the need for additional technical support especially with the impending 1:1 additional devices.



The Director supervises the technical side of the operation as well as the instructional area. The network leadership carries numerous certifications. Like many school districts, the department has end user technical staff members that do not carry certifications. The Director is a member of the Superintendent cabinet. He and the Instructional Technology Coordinator have been meeting with the district technology Vision Committee. This committee is comprised of 18 members representing district leadership and K-12 teachers and administrators. The committee leads the LCS-ONE implementation.

The IT senior staff meet every other Tuesday. The DARTS meet every Tuesday for PLC and twice a month meet with the Instructional coaches. They also attend school faculty meetings and building PLC meetings. They meet informally with the district Instructional Coaches.

Technical staff receive most technical training via Lynda.com. Conference attendance is available although limited for training. Most network documentation is managed by the Assistant Network Administrator. They are currently migrating to a shared Wiki for documentation sharing.

The department uses a web based help desk ticketing system. Users submit work orders via Manage Engine Service Desk. The work order system is not tied to inventory. Remote Desktop & VNC are both in use for remote support. The district is moving to Microsoft ForeFront Identity Management.

Focus group interviews conveyed a need for improved communication. Question 7 of the teacher survey demonstrates that less than half (48.48%) of teachers feel they have adequate technology support. The teacher open ended survey responses conveyed considerable frustration with the removal of the ITS from building support.

The district currently is using a summer student internship program. Students assist with device maintenance and network support. These students are working toward A+ certification. The district is considering offering a class next year where students will be in support of the LCS-ONE program.

To provide sufficient support for the LCS-One implementation, it is recommended:

a. The Supervisor for Instructional Technology and the DARTS should establish routine meetings with the staff development and curriculum departments and instructional coaches. The group should have ongoing dialogue and planning regarding the classroom integration of technology.
b. The district needs to improve support ratios for IT. With increasing device to support ratios, response for help will be slow. The response slowness will cause teachers to abandon teaching and learning with hardware and software if it is inoperable for long periods.
c. Invest, when necessary, in contracted services to catch up with support, or adding network services and integration services.
d. Develop a training program with budget for IT staff to support the new tools and hardware. Incorporate training with vendor contracted services installation and other face-to-face and online trainings. Personnel require the skills to support the ever changing IT landscape.
e. Consider cloud-based solutions versus locally-hosted software to alleviate the need for additional personnel support and improved services.
f. In addition to meeting with the Visioning Committee, the Director of IT should meet regularly with building principals and district leadership to have conversations about instructional needs, adoptions and developments.
g. Expand the implementation of a student internship program. Work with the high school

principals to develop full year courses for student opportunities and IT assistance. Student internship programs assist in the alleviation of staffing and promote career education opportunities for students.

h. Look for ways to increase site-based instructional technology training and assistance. Solutions such as training library media specialists for basic end-user training or evolving train the trainer programs into fully developed systems, such as “techno buddies” at sites.

Communications Review

As with the implementation of any new program, proper communication to all constituents is critical to its success. That is no less true with new programs in support of 21st Century technology in the classroom. A consistent and timely message across all manner of communication methods is equally as important. With these factors in mind, we have designed a Communication Plan for Lynchburg City Schools that will accompany the LCS-ONE.

Convincing your constituents is a primary focus for all communication. When constituents feel informed, they feel respected. Without their support, success will be more difficult. We recommend continual attention to communication and, in support of that effort, we recommend districts form a technology leadership committee charged with the initial phases of the program including research, recommendations, mission development as well as communication.

LCS formed its Visioning Committee to lead the district through the implementation process. The committee is comprised of stakeholders across the district. Ideally, this committee should be comprised of school leadership from all levels with members who:

- believe and take ownership in the technology initiative
- have a fairly comprehensive understanding of 21st century classroom technology
- possess good communication skills
- and are comfortable with one or more of the communication tools planned for use

Communication should occur throughout the various phases of the project. To help with the specific communications requirements throughout all phases, we have developed the following chart with a recommended focus, person or group involvement, suggested communication methods/tools and a target audience to keep in mind.

Engage all community stakeholders throughout the rollout process. Community leaders, real estate agents, rotary clubs, etc will use the program as a potential recruiting tool to engage new families and businesses to move to the community. Informed local law enforcement and pawn shops can assist the district in recovery lost or stolen student equipment.

Please see Appendix 2: Communication Plan.

Supporting Communication Materials

A copy of the LCS-ONE community launch can be found in Appendix 3. LCS staff should carefully review the survey data to ensure that concerns from staff and parents are addressed during the implementation. FAQs and orientations should be available for all stakeholder groups. Lynchburg has a good start on this as they have clearly shared the current FAQs at the district website. Here is a list of specific communication pieces by phase for consideration and development:

Discovery

- AFAQs – Anticipated Frequently Asked Questions. An effort to answer those questions from the constituents that may or may not be brought up prior to implementation.
    - Review FAQs from other 1:1 schools

    - Continue to add to the existing FAQs at the LCS-ONE webpage
- Program Mission – Include relationship to overall school mission. For instance, the LCS-ONE is directly aligned with the mission of "Every Child, By Name and By Need, to Graduation" therefore LCS should capitalize on preparing a graphic and sharing it in multiple ways with the public. A good example is the "Five" marketing initiative of 2013-14. The district could model technology rollout materials with a logo that communicates the initiative in a clear and concise manner.
- Constituent Presentation – The Why's of a 1:1 Program. Such a program should be developed as a foundation that can be personalized for different audiences. In this way, the Superintendent can speak to the Rotary Club and the principal can speak to parents at back-to-school night and a board member can articulate the ideas at a coffee shop, yet there will be a very consistent message as to the rationale of the effort and how it is going to improve student achievement.

Direction

- Program Goals – In addition to having identified six main goals for the 1:1 implementation, this process with LCS has resulted in strategies to accompany each goal. A list of these and suggestions for tracking and measuring progress toward them can be viewed in the earlier report section on goals.
- FAQs – AFAQs plus additions from the Discovery Phase
- Updates to existing handbooks – In the very least, beginning in 2014-15, staff and student/parent handbooks should provide a brief overview of LCS-ONE and include the website at which one can obtain access to the FAQs and other information. As this evolves, additional information regarding related policies and procedures need to be included in these documents.

Implementation

- **Rollout Presentation** – Presentation to all students and parents in a required joint meeting so students know what the parents know and the parents know what the student knows about the proper use and care of the specific technology device. Ideally, these will be offered in face-to-face environments, however focus group discussions would indicate that making an option for this available on-line and/or dovetailed with other school activities would be beneficial to meet the needs of the parents and patrons of the district.
- **Rollout Documents:**
    - **Responsible Use Policy** – a detailed document outlines appropriate and responsible use of the school's technology
    - **Device condition assessment** – a document for the parents to agree to the condition of all devices and components issued to the student
    - **Insurance Purchase** – if available, the option for parents to purchase insurance to cover damage and/or loss of a school owned device

On-Going

- **Parent Education Technology Presentation** – Keeping parents informed about all technology in use by their students including how to monitor activity, assistance with home use requirements, guidance for use at home plus addressing any concerns parents may have as these technology devices and tools become more and more pervasive. In the survey, parents expressed that email is a desired avenue of communication from the school. They also expressed a desire to learn more about

- the goals for technology use
- how technology is presently used in the classroom
- how teachers are preparing for using technology in the classroom
- real-life examples of learning that results from using technology

In addition to stakeholders suggesting that "parent information and education" sessions accompany other school activities, such as concerts and back-to-school events, there appeared to be a desire to be able to access this information via the district website. By recording one of these sessions and uploading to the district website, LCS could make it accessible all throughout the year for new families and/or others who would like to view it.

Also, LCS may be able to partner with the local media to produce news stories on these different areas of interest to the community. Not only could a television station, radio or newspaper run a series on the LCS-ONE initiative throughout the school year, they could incorporate students who are in high school and using the devices as co-reporters. This would be a wonderful way to educate the community and engage students in using the technology for a very meaningful purpose.

Rollout Review

Deployment of student devices is often times one of the more enjoyable parts of a 1:1 project, because it involves the students. There are many different ways that devices can be deployed to students, and we will touch on some of those ideas here. LCS has already put together a timeline for deployment and some plans for deployment. The staff at LCS should be commended for diving in and tackling many of these issues ahead of this report.

The plan developed by LCS begins training students and parents in September, during evening sessions. Students should be required to bring a parent/guardian to the deployment nights in order to ensure that parents hear any rules and requirements that are presented to the students. It may be less important in future years, as the students get older, and as the program matures. This would be a great opportunity to collect any fees that may be related to the program, such as insurance.

Since LCS is utilizing CDWG's "white glove service," there will be minimal setup of the Chromebooks. Students will most likely just need to power the device on, and login with their credentials. Since deployment is taking place in September, students should already have this information. In future years however, moving the deployment nights to the start of school will increase the complexity of the evenings, as usernames and passwords may need to be handed out. This will grow increasingly important over time, as teachers begin to depend on having the devices, and they will not want to wait until September.

LCS may want to consider offering parents an information session about the basics of the Chromebooks, as well as Internet safety and responsible use. Parents may find it beneficial if a session like this is offered, but not required. You may be able to get local law enforcement to assist with this presentation, as many school districts already have enlisted community support. Many parents may believe that this will become the home computer, and may want other children in the house to use the device - consider how you will address this.

Share any materials you create with the parents, and community through the district website. Tell your story to anyone who asks, and post your progress on social media. This way your story can be heard, and any rumors can be put to rest immediately.

Additional items to consider:

- Will students have already signed the AUP, if not consider having them sign it on deployment night in order to receive the device. This may make paperwork easier knowing that no student would have a Chromebook unless their AUP is turned-in.
- Utilize students from a tech club (or similar) to provide tech support and answer questions. It is inevitable that students are going to have login problems. Having adequate technical support available will be critical to ensure a smooth rollout.
- Develop FAQs that are posted online and can be updated as issues arise. This could easily be done with Google Sites, and shared with the students. Many of the questions for this document can come from Q&A sessions with parents on deployment nights.

- Students are often times eager to help other students (and staff). Utilizing students to provide technical support throughout the school year would possibly allow LCS to not increase staffing (or as many). The formation of a student "Tech Club" may help to identify issues early, and resolve before they become a larger issue. Let the students be your eyes and ears.

LCS's current Acceptable Use Policy (AUP) should be re-written to include all of the new issues that will arise with a 1:1 program. EC has gathered several different policies that should help with revising your policy. You can find these sample policies in Appendix 4. It should be noted that there are essentially two different philosophies to an AUP. The first, being a document that tells students all of the things they should not be doing. The second, often times called a Responsible Use Policy or RUP, is a little easier for students to understand and isn't laden with legal jargon. Many times the RUP is considerably shorter, and more likely to be read (and understood) by the students.

In the area of "acceptable use policies" many schools are moving away from detailed lists of prohibited activities, which tend to become dates almost as soon as they are published, to "honorable use policies" which are broader in scope and spring from school honor programs, programs which have significant student input in their development. EC recommends that the LCS develop digital citizenship guidelines for the educational community – guidelines for use of email and social technologies (social networks, blogs, IM, social media, etc.) and communicate these guidelines with all members of the community. Ideally, students must hear the same message from both the home and school.

There are several sample policies included in Appendix 4 for review. Two of them are Responsible Use Policies, and three of them are Acceptable Use Policies. The Ohio Hi-Point Career Center document is the AUP along with a student-laptop handbook that covers additional items, you may find some of this to be helpful in developing your own policy.

Academic Review

Overview

Establishing a clear connection between the curriculum development process and technology integration needs requires district leadership to reach consensus about the role technology plays in learning. They must make a corresponding commitment that translates theory into action in order to juggle dynamic, multiple priorities each year. Such planning is supported by International Society for Technology in Education (ISTE):

> *The integration of technology should serve to guide, expand and enhance learning objectives. It is understood that teachers and students do need to spend time learning the basics of using a computer. This is necessary in order to move to effectively integrating technology. Curriculum integration with the use of technology involves the infusion of technology as a tool to enhance the learning in a content area or multidisciplinary setting. Technology enables students to learn in ways not previously possible. Effective integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions, as accessible as all other classroom tools. (ISTE, page 6)*

Effectively integrating curriculum with technology is one of the most important components of a successful technology program. Survey data reveal that **LCS** teachers, principals, and parents believe that technology integration could have very positive impacts on students. They ranked all surveyed areas highly as outcomes associated with successful technology integration (Appendix 1, Question 9 and 13), including:

- better preparation for college and careers
- student organization
- lifelong learning
- higher student engagement in class assignments
- improved academic achievement
- improved communication skills
- improved collaboration skills
- engagement in global issues
- improved information literacy
- more opportunities for creative expression

Appendix 1 Question 7 indicates that over 97% of surveyed teachers believe it is important to teach 21st century skills. Whereas just over 76% of the same group believe that LCS is doing a good job of teaching the 21st century skills and a few less (72%) believe LCS is going a good job of teaching basic computer skills. Over 90% of the staff convey they already use technology to support the curriculum. However, only 56% of the staff believe that students have a good understanding of Internet safety guides. Staff also conveyed a strong belief that technology supports learning in the following areas:

- addressing different student learning styles
- increasing student engagement

- increasing student learning opportunities that otherwise would not be possible

Principals, teachers, and parents likewise agree on several areas of concern (Appendix 1, Question 10 and 14) regarding technology. (It is noteworthy that these items are all somewhat "fear based.")

- student distractibility
- student Internet safety
- inappropriate Internet materials
- cyberbullying

Principals and teachers also share several additional concerns in areas where parents were not polled. (Appendix 1, Question 10 and 14). These items are resource based.

- time needed to learn and use technology
- adequate funding
- availability of professional development
- time to learn technology
- gap of student technology skills

Noteworthy with this question is that parents were the only surveyed group that expressed a concern regarding transitioning students from textbooks to electronic copies. This is an area of focus for the parent orientations.

Recommendations for Best Practices in Academic Areas

Student Email. EC recommends that students be rolled into the school's email system. Student email should be phased in with the LCS-ONE implementation.

Learning Management Systems. The school is to be commended for its initial forays into the learning management system Moodle. EC recommends that the district further develop an LMS to support student and staff learning as well as serve as a district curriculum repository.

Curriculum Resources. EC recommends that LCS create a unified technology curriculum approach within its implementation of Virginia State Standards and local curriculum plans. The district LMS can provide standardized access and collaboration for the collection of these materials. EC recommends that LCS:

- Charge content area instructional leaders with the responsibility of examining their content area curriculum and pedagogy and identifying what technology is used and what 21st century skills are taught. Having content areas tackle and "own" tech integration ensures that every faculty member has a place to invest in the work of moving tech integration and curriculum design to a higher, more transformative level. Departments should begin identifying potential opportunities where effective technology integration could accelerate learning.
- Align instructional resources and curriculum. In focus group and survey responses, staff indicated a concern regarding the amount of time it would take to find appropriate curriculum related technology resources.
- Map electronic resources to district curriculum. As the district begins to look at curriculum and resources related to CCSS this work will be both relevant and timely.
- Develop a process to collaborate across the district to capture effective teacher resources and update them regularly. This collection of documents should be available online, minimally within

a shared server or cloud-based repository or more extensively within a LMS or curriculum mapping software.

ISTE NETS Standards. The International Society for Technology in Education's (ISTE) NETS also provides additional frameworks for instructional technology planning with standards for administrators, teachers, students, technology coaches, and computer science educators. EC recommends that LCS:

- Consider the potential of Tech Integration Groups (TIG). If expectations and accountability are to be instituted, stakeholders will need a means to have a voice and to feel engaged in the process. Tech Integration groups should be charged with determining the minimum expectations, identifying content, establishing standards, and creating rubrics or descriptors that define and exemplify innovative teaching and curriculum. Listed below are some of the tasks this group should undertake:
    - Review the ISTE's NETS for Students and Teachers and develop a plan to include the standards throughout the curriculum integration process.
    - Define and explain what tech integration and student centered learning "looks like" in grade level subject area.
    - Formulate a list of minimum requirements (such as posting assignments online, grading some student work electronically, contributing one example of 21st century curriculum to a shared wiki) and clearly communicate these requirements to colleagues.
    - Develop appropriate technology integration and minimum technology skill competencies.
    - Enhance and leverage collaboration between teachers, technology staff, and administration. To further support this work, consider using a collaborative online space to share ideas and suggestions as they are developed.
    - Leverage opportunities for groups to share examples of a variety of implementation approaches.

Digital Citizenship. EC recommends that the district develop a Digital Citizenship charter and review existing curriculum to ensure that the activities support students and staff in developing and sustaining sound digital citizenship. In many schools librarians have a key role in developing information literacy efforts, while school counselors and health personnel provide support in developing materials regarding cyberbullying and internet safety. While IT needs to be a key player in these conversations, it is important the final policy decisions be made by academic leaders with IT providing the necessary technical and professional development to support those decisions.

LCS may want to reference a range of resources that have already been developed to teach digital citizenship as they create and refine lessons and activities. EC recommends these sources:

- Online Safety - www.commonsensemedia.org
- Cyberbullying -- cyberbullying.us and www.cyberbullyingbook.com
- Copyright - www.teachingcopyright.org
- Balanced use of technology - rheingold.com/netsmart

Adequate Resources to Support Technology. Many people believe that when it comes to "resources" in schools one is ultimately talking about money. While money is often involved, it would be a mistake to think that it is the only solution. For example, when it comes to faculty time there's a tendency to consider all new programs and initiatives to be additive in nature, i.e., piling more on teachers' plates. Even with additional compensation for taking on purely additive approaches are ultimately

unsustainable. EC recommends that as part of LCS's efforts at supporting technology it considers how technology can *reduce* teacher time spent on certain activities. This can be achieved through the more strategic and mindful use of existing technologies such as email to the use of new technologies such as learning management systems that can automate the distribution and collection of student assignments, testing, and can even provide basic feedback on written assignments.

EC would be naïve, however, to think that money does not play a critical role in addressing the technology issues in the district. Infrastructure, classroom technology, and professional development all require investment as does the physical plant, textbooks and other learning materials, and most of all employee compensation.

Professional Development Review

With the data collected and information provided through conference calls, surveys, and a site visit, EC has created a prospective "Three Year Staff Development Plan" for professional development. This plan is a guide for professional development that can be modified and adjusted as need to fit the calendar year, specific training opportunities, and participant opportunities and skill levels.

PD planning and implementation should be a collaborative joint responsibility between the curriculum and instruction departments and the instructional technology branch. Leaders and coaches from the separate departments should be meeting frequently to structure, design, and lead the training. Curriculum instructional coaches and DARTS should be visible and leading the trainings. Another resource to consider and include with ongoing support includes library media staff. Currently they are not well utilized in support of technology and staff development.

The timeline below gives recommendations for professional development, beginning in the few months prior to the projected 1:1 launch date, and continuing through the first year. On an annual basis, LCS should review the previous year's goals, collect the recommended data, evaluate and measure the progress related to the overall goals, and develop the next professional development step based on the data. It may be necessary to modify the goals for a given year based on the analysis of the data. This is an ongoing, three–step process: planning, instruction/implementation, assessment.

Professional development during the first year should include workshops on issues that will be of particular interest to teachers in beginning stages of a 1:1 launch. Such issues or topics include:

- Affective Role and Culture of a 1:1 Classroom
- Classroom management for teaching in a one–to–one environment
- Integration techniques and instructional strategies for a technology–infused classroom
- Instructional strategies for the implementation of student–centered learning activities and projects
- Flipped Classroom: what it is, how to do it, and techniques for creating videos and screencasts
- Utilization of Google Apps as a natural workflow and tool for productivity, creativity, communication, and collaboration, focusing on individual use of the tools for teachers, staff, administrators, and students as well as the collaborative aspects of the suite of Google tools
- Maximizing the use of the Learning Management System for teacher–student purposes, resource management, etc.
- Classroom design—creating optimal learning spaces for student–centered learning and collaborative experiences
- Infinite Campus training and presentation of expectations for all faculty and staff to assure a clear understanding of both its use and faculty responsibilities in regard to the portal, student assignments, etc.

Delivery of the professional development workshop experiences should include separate learning experiences for participants with different skill levels, when appropriate, to assure maximum engagement and success. While cross–curricular groups in professional development activities are of great benefit for interdisciplinary connections, conducting some professional development activities or workshops in which participants are divided by either grade levels or curricular focus (i.e., departments) should also be included. This is especially worthy of consideration when professional development experiences focus on Virginia State Standards and technology.

Year One—June 2014 to June 2015

During the first year as teachers and students prepare for the 9th grade student deployment of Chromebooks in the academic year of 2014–2015, a primary focus should be on providing professional development opportunities for those faculty member who will be directly involved in teaching those students—ninth grade teachers. Because of the LCS-ONE implementation plan, 8th grade foreign language and math teachers should also be involved in the training. Ongoing, meaningful professional development experiences for faculty members are critical for the overall success of the initiative.

Administrative staff members and leaders should participate in faculty training opportunities as well as separate professional development experiences that have a specific focus on principals and leadership staff. While experiences with a specific leadership focus are planned for those groups, it is also important to for the leadership to indicate the importance of this initiative by attending faculty professional development events and showing their support.

Important to the ongoing success of this initiative is the development of a professional growth plan that includes the integration of education technology tools and strategies. This should be created by each faculty member, and it will be a "living," dynamic document. Through meetings with supervisory personnel, this should be a non–threatening, collaborative process that is fluid and "growing," setting goals and objectives for technology integration and other related initiatives.

The information below provides recommendations for professional development, beginning in the few months prior to the projected 1:1 launch date and continuing through the first year. While a three–year plan is included below that, it is important that this be reviewed annually in relation to the overall goals. The administration should collect relevant data, evaluate and measure the progress related to the overall goals, and develop, plan, and refine the next professional development step based on the data. It may be necessary to modify the goals for a given year based on the analysis of the data. Because of that, the professional development plans for years two and three are built on the plan for year one, with ongoing assessment, planning, and review as part of the process after the first year.

While much of the professional development plan is directly related to teachers, it is also important to have a plan for principals and district office staff. Their understanding of technology integration and a technology–infused school is critical to the overall success. The use of these tools is important or all constituents, not just teachers and students (customizing the professional development for that specific group). Additionally, the presence of principals and other staff members in leadership positions at faculty professional development events is strongly encouraged, as it gives the faculty "a signal" of the importance of the overall technology initiative, showing leadership support.

Professional Development Options for Year One, 2014-2015
(with a focus on 9th grade faculty as well as 8th grade foreign language and math)

Immediately—necessary technical training as well as overall understanding of the "cultural" changes that will be taking place with a technology–infused	Google Ninja Training, including Gmail; Infinite Campus

campus	
Summer Technology Academy, June 10–13	Tech Academy
Fall Inservice	Pacing Guides, Hands–on Workshops with Focused Training, etc. Reinforcement of LMS, Google Apps, and Student–Centered Learning in a One–to–One Environment
Division Days (1–2 days)	Reinforcement of earlier training events as well as continued presentation of important topics relevant to needs and goals
Quarterly Early Release Days	Build in important, relevant technology–focused professional development that is determined by need and assessment
Voluntary Saturdays and evenings with DARTS and coaches	Provide motivation for these experiences, determine the topics covered by polling the faculty, and provide recognition to those who regularly attend these sessions
Conferences	Attendance at conferences that support the overall goals
Webinars and Online Tutorials/Resources	For introducing concepts/tools prior to a hands–on training or as a reinforcement review and "taking it further" following a training event.
School/Classroom Visits	Observing best practices by experienced teachers modeling effective instruction is of great benefit. Providing release time for these types of activities is a positive experience, especially when done as either a grade–level team or curricular–focused department (i.e., the science dept.).
Ongoing Collaboration with DARTS	This ongoing review and assessment along with goal setting is very important to maintaining the momentum
Regular Planning and Review with Supervisory Personnel—Technology Integration and Related Instructional Strategies as Part of Professional Growth Plans	The collaborative development of a professional growth plan for each individual is important as is the ongoing review of the plan along with any necessary revisions
Personal Learning Communities	Establishing and maintaining PLCs is a very motivating and engaging method of engagement and professional growth for faculty and leadership
Mentor and Provide Growth Opportunities to Teachers	Allow the "star teachers" to share their successes with their peers at faculty meetings and other school/district

	events as well as have them occasionally lead training workshops; in return provide them with relevant growth opportunities to continue to foster their initiatives
Consider Common Readings for Faculty and Staff	These could be short articles, a summer book reading, etc.—conduct discussions around the readings at faculty meeting or other events (these can be very short, or they can be more lengthy, depending on the reading and related goals)

Topics to consider as part of the professional development experiences are, many of which are directly related to the surveys and focus group discussions:

- Culture of a 1:1 Classroom
- 21st Century Leadership
- 21st Century Teaching and Learning
- 21st Century Skills
- Virginia State Curriculum and Technology Standards (by grade level or discipline)
- Project- Based Learning
- Online Tools for Project-Based Learning
- Web 2.0 Tools
- Collaborative Learning
- Student-Centered Learning
- Assessment related to instruction (including assessment of the instructional strategies being used and technology integration)
- Assessment (students)
- Concentrating on Skills and Individualization
- Discipline-Specific Classroom Applications for Technology
- Simple Troubleshooting for Common Problems
- Digital Citizenship
- Communication Tools
- Research Tools
- Brain Research & Technology
- Differentiating Instruction with Technology
- Inquiry-Based Learning
- Blended Learning
- Learning Management System, Moodle, Edmodo, etc.
- E–Textbooks and Online Learning Resources
- E–Portfolios
- Ethics (cheating, plagiarism, copyright, etc.)
- Cyberbullying

Survey results indicated the following for teachers that should help guide professional development:

- Faculty members are minimally using Google Docs/Microsoft Live Workspace as a collaborative tool. The use of these types of cloud–based resources is extremely important as they are a very

important part of the instructional and education processes for both teachers and students, especially as students move to a ubiquitous environment (only 3.60% of teachers indicated on the survey that they are currently using these tools collaboratively).

- Moodle training is necessary to fully involve faculty in its use if it is to continue to be a standard tool for teachers and students (76% of teachers do not know how to use it).
- Faculty members are not regularly contributing to or updating their teacher website, which may because they are using other tools such as Moodle, Edmodo, etc. However, if they are to make the site more dynamic much like a student portal, then this warrants additional training (35% indicated "not at all," 50% "sometimes," and 14% indicated "never."
- Continued effective use of SMARTboards might be considered in future professional development activities (33.20% feel comfortable teaching others how to use them, but 58.57% frequently use them, indicating that a higher level of use and understanding of best practices for interactive whiteboards could be of benefit).
- Few teachers currently use district–provided software to analyze student data (21.20%). therefore a better understanding of the benefits of the use of data for effective teaching would be beneficial.
- The majority of the teachers prefer hands–on instruction for professional development (90.36%) followed by interactive experiences (79.92%), and small group collaborative teams (66.27%). With hands–on learning experiences, faculty expressed a desire for activities that could be taken back to their classrooms and immediately implemented—"make and take" sessions.
- Less than 30% of the teachers indicated in the survey that they prefer webinar or online sessions/classwork with discussions. Yet 40.16% prefer working on their own using video and the Internet. The use of these types of tools would be of benefit for introduction to or reinforcement after a hands–on engagement such as the ones listed in the previous bullet point, much like a flipped classroom type of model.

Survey results indicated the following for staff that should help guide professional development for that constituency:

- District staff members are minimally using Google Docs (63.3% do not use). The use of these types of cloud–based resources is extremely important as they are a very important part of the instructional and education processes for both teachers and students, and have great potential for staff as well.
- The majority of the staff prefer hands–on instruction for professional development (96.67%) followed by interactive experiences (80%), and small group collaborative teams (73.33%). These numbers are very similar to those expressed in the teacher survey.
- The least desired professional development experience is large group (20%) and online classwork/discussion (20%).

Survey results indicated the following for principals that should help guide professional development for that constituency (some as a separate group, some as part of faculty training):

- Principals are minimally using Google Docs/Microsoft Live Workspace as a collaborative tool. The use of these types of cloud–based resources is extremely important as they are a very important for principals and staff members for their personal workflows as well as for an understanding of the educational use by faculty and students (75% of principals indicated that they do not use these tools at all).

- Principals are concerned about adequate time for professional development in technology integration (approximately 69% indicated a high level of concern related to this). Thus providing regular, ongoing opportunities for professional development is of extreme importance.
- Time needed to learn and use technology was also a concern (approximately 60% indicated a high level of concern related to this). It is important that faculty and staff have adequate time to implement new tools and instructional strategies.
- **Of significant importance are the concerns that received high responses on the survey of principals: Internet safety, digital citizenship, inappropriate materials on the Internet, technology ethics (cheating, plagiarism, etc.), and cyberbullying. It is critical that principals have training and resources to address these very important topics and be able to communicate clearly about them with parents and other community members.**
- Principals prefer the same types of learning experiences for professional development as those expressed by faculty and staff (92% hands–on, 83% interactive, 83% small group collaborative teams). Other results were also very similar to the results from the other constituencies.
- Other topics that indicated further professional development opportunities for principals (according to the survey responses) are:
    - The use of conferencing tools such as Hangouts, Skype, chat tools, etc.
    - Evaluation of online resources
    - Security and privacy settings on digital devices
    - Evaluate and select software (including apps and browser extensions)
    - Post information to the school's website (a great communication tool for the school community)

Other topics to be considered for professional development for principals (either with faculty or separately) are:

- Assessment
- Collaborative planning and goal setting with ongoing review for professional growth plans for faculty (this is done with the faculty member in a non–threatening manner) is **very** important to setting the stage and maintaining the momentum

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Professional Development Options for Year Two, 2015–1016

(with a focus on 10th and 11th grade faculty in preparation for laptop implementation in grades 9 thru 11)

Note: The same types of opportunities as those listed in the chart for year one are to be provided. However, the focus will change somewhat and expand to other grade levels.

9th Grade Teachers (and others previously involved):

- Conduct an assessment to determine successes, identify issues, and plan for next steps in their professional development goals and objectives related to their status at that time
- Engage these teachers to be mentors to teachers who will be entering the "program" with classes of students that are new to the one–to–one environment
- Continue to conduct professional growth interviews in which individuals can adjust and adapt their individual goals relevant to past experiences and ongoing objectives

10th and 11th Grade Teachers (new to the one–to–one initiative):

- As this is the first year of teaching in a technology–infused environment, it is critical to give these teachers the pedagogical overview and related professional development opportunities that were provided to 9th grade teachers the previous year
- Survey and assess the current expertise of this group of teachers related to technology integration and other pertinent topics, prioritize the needed professional development activities, then plan for their implementation
- Initiate the professional growth process for setting goals and objectives with this group as it was done with the ninth grade teachers the previous year if it has not already been implemented
- Specific professional development strategies and opportunities will basically follow the same outlined for the 9th grade teachers in year one, with adjustments and adaptations made where needed, using the results of the survey and assessments during the planning process

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Professional Development Options for Year Three, 2016–1017
(with a focus on 6th, 7th, 8th, and 12th grade faculty in preparation for the chromebook implementation in grades 6 thru 12)

Note: The same types of opportunities as those listed in the chart for year one are to be provided. However, the focus will change somewhat and expand to other grade levels.

Teachers in Grades 9 thru 11 (and others previously involved):

- Conduct an assessment to determine successes, identify issues, and plan for next steps in their professional development goals and objectives related to their status at that time
- Engage these teachers to be mentors to teachers who will be entering the "program" with classes of students that are new to the one–to–one environment
- Continue to conduct professional growth interviews in which individuals can adjust and adapt their individual goals relevant to past experiences and ongoing objectives

6th, 7th, 8th, and 12th Grade Teachers (new to the one–to–one initiative):

- As this is the first year of teaching in a technology–infused environment, it is critical to give these teachers the pedagogical overview and related professional development opportunities that were provided to 9th and 10th grade teachers in their first years of one–to–one immersion
- Survey and assess the current expertise of this group of teachers related to technology integration and other pertinent topics, prioritize the needed professional development activities, then plan for their implementation

- Initiate the professional growth process for setting goals and objectives with this group as it was done with the ninth and tenth grade teachers the previous years if it has not already been implemented
- Specific professional development strategies and opportunities will basically follow the same outlined for the 9th grade teachers in year one, with adjustments and adaptations made where needed, using the results of the survey and assessments during the planning process

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Additional Comments:

Faculty should have time to plan for integration, designing lessons that incorporate the use of technology. Focus and goal–setting are very important in this overall process. Additionally, assessment and measurability of the lessons should be addressed.

Staff development sessions should not just be "how to" sessions but rather be designed as "make and take" sessions. Staff should be afforded time within the confines of their time together with the trainer to construct lessons incorporating the new technology. The sessions should end with a "show and tell" where staff demonstrate the new lessons with other staff learners.

Faculty should be provided ongoing support in which this becomes an exciting and engaging culture of student–centered learning. As we do with our students, faculty should know it is okay to have a moderate degree of risk as they develop creative lessons and implement new technologies. Assuring them that growth is sometimes associated with small failures along the way, and it is okay to "fail" as they navigate these new waters. Small failures lead to bigger successes when we learn from them and adjust accordingly.

It is important that **purpose** is kept at the forefront of technology integration and related professional development. The professional development should be concept–based, focusing on sound pedagogy for the 21st century, and the technology should always be directly related to goals and objectives for teaching and learning. It is not about the tool—it is about what is best for teaching and learning.

Appendix 1 - Lynchburg Technology Survey Analysis – 2014

Appendix A – Teacher Survey Responses

Table 1

Table 1 asks responders to indicate the level in which they teach. Out of the 689 teachers, there were 291 that completed the survey. There were 130 elementary teachers for a return of 44.67%. There were 81 middle school teachers for a 27.84% return level. There were 90 high school teachers for a 30.93% return level.

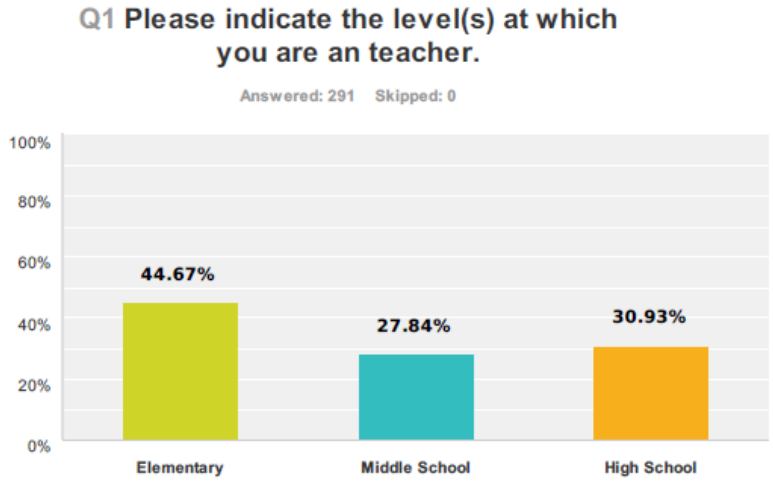


Table 2

Table 2 asks responders to indicate the Internet connection speed that they have available at their home. Over 85.7% of the teachers use a cable or DSL connection.

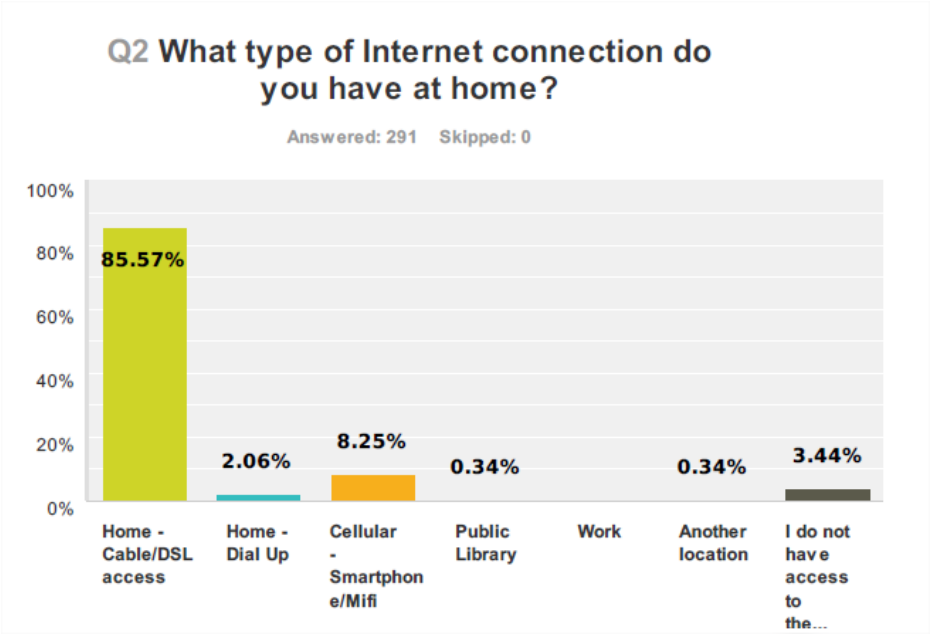


Table 3

Table 3 asks responders to indicate the type of device apart from a computer they regularly use. Responders could pick multiple responses. Computers, laptops and smartphones are used by over 60% of the staff.

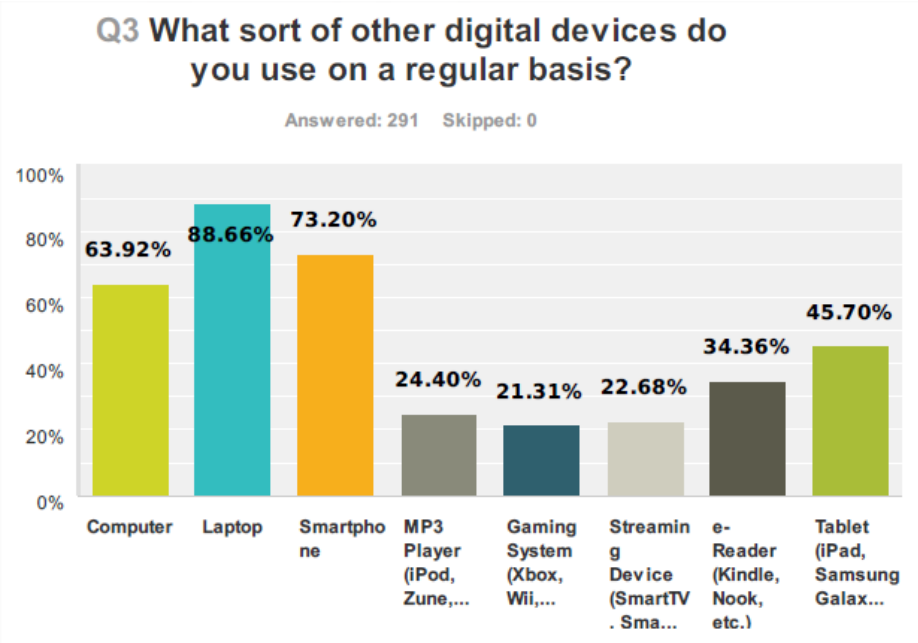


Table 4

Table 4 asks responders to indicate their level of satisfaction with technology access at school for both teachers and students. The data shows the coupling of the top three responses that teachers are more satisfied with access for teachers (76.18%) versus students' access (48.72%).

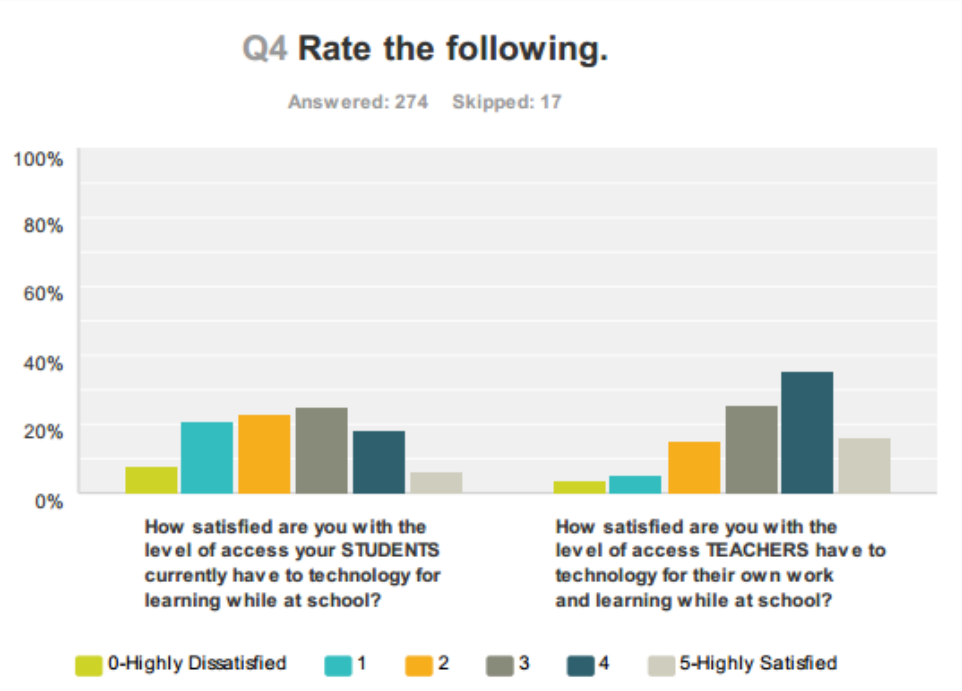


Table 5
Table 5 asks responders to indicate the type of student device they would find the most desirable for student use with 1 being the most desirable and 6 being the least desirable.

Coupling the 3 most desirable categories we find the following rankings:
Laptop 40.88%
Tablet 21.53%
Chromebook 17.52%
Desktop 14.96%
E-Reader 3.28%
Mobile Device (Smartphone, I Pod Touch, etc.) 1.82%

The results indicate that staff prefer mobile (laptops, tablets, and netbooks) over stationary (desktops). It also indicates that teachers do not find E-Readers and Smartphones as adequate student devices.

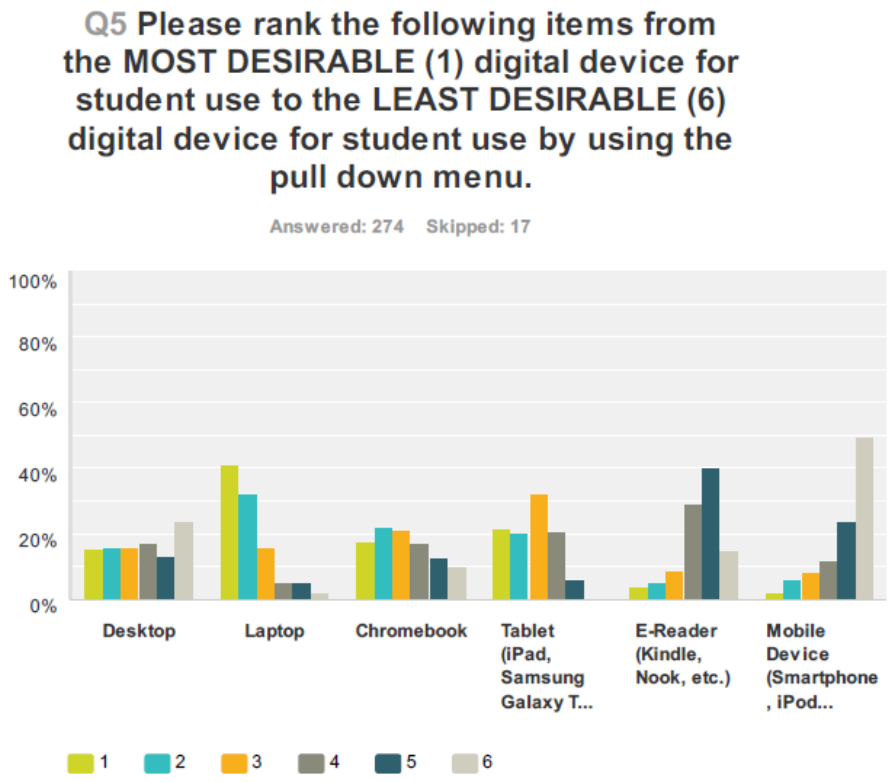


Table 6

Table 6 asks teachers to indicate amount of student access to devices they would find the most desirable. The most desirable response was that each student would have their own device use for both at home and at school. There is a decisive difference in the data between each student having their own device and students sharing a device. 81.02% of teachers categorize a shared device as the least desirable.

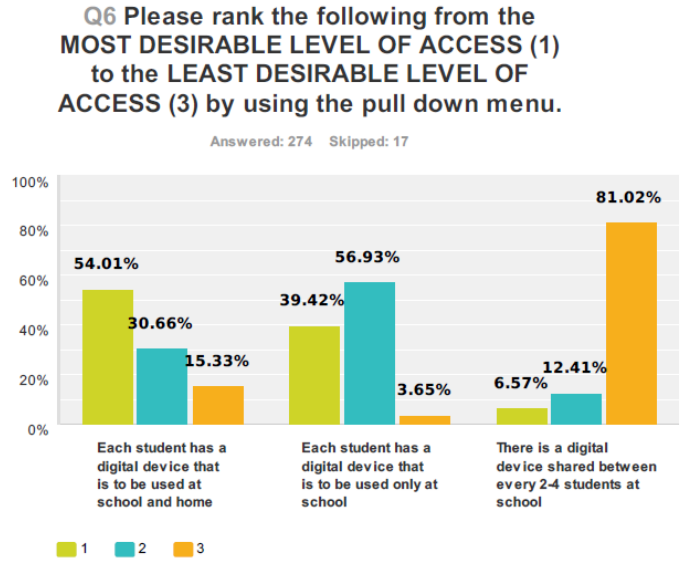
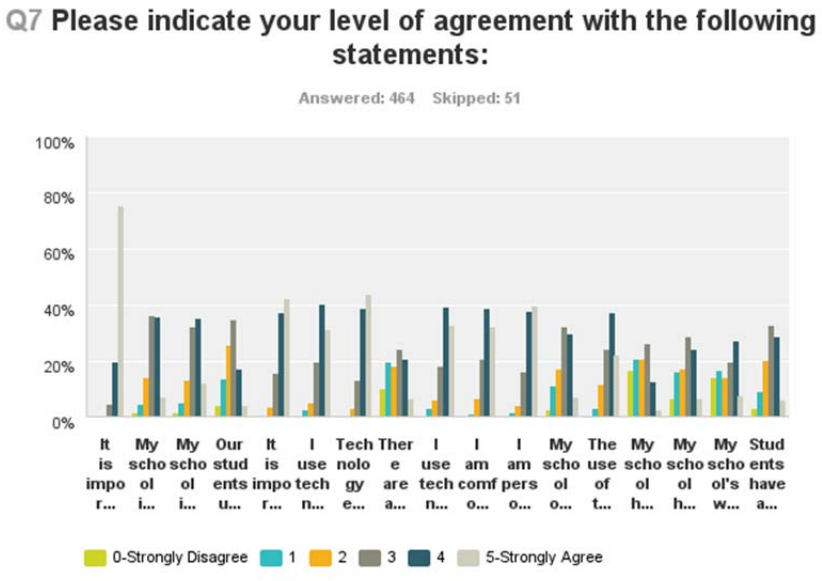


Table 7

Tables 7a and 7b summarize teachers' beliefs toward technology. Over half of the teachers (65.91%) believe that it is important to teach 21st century skills. They are less inclined (7.95%) to agree that their school is doing a good job of teaching these skills. Teachers also feel that technology enables teaching and learning opportunities that would not otherwise be available (45.45%). Teachers are in less agreement that they have adequate technology resources in the classroom (5.30%), adequate funding to support technoogy (2.27%) and adequate support (6.44%). It is also noteworthy that although teachers believe they are comfortable using technology to support instuction (42.42%) they do not have as much confidence in the district provided staff development (9.85%).



	0-Strongly Disagree	1	2	3	4	5-Strongly Agree	Total	Average Rating
It is important for schools to teach 21st century skills	0.38% 1	0.76% 2	1.52% 4	9.09% 24	22.35% 59	65.91% 174	264	5.50
My school is doing a good job of teaching 21st century skills	2.27% 6	6.82% 18	14.39% 38	36.36% 96	32.20% 85	7.95% 21	264	4.13
My school is doing a good job of teaching basic technology skills	3.79% 10	6.82% 18	17.42% 46	30.30% 80	29.92% 79	11.74% 31	264	4.11
Our students use technology to take responsibility for their own learning	8.33% 22	21.59% 57	24.62% 65	23.86% 63	17.05% 45	4.55% 12	264	3.33
It is important that teachers use technology to address different learning styles	1.14% 3	1.52% 4	5.30% 14	16.29% 43	37.50% 99	38.26% 101	264	5.02
I use technology to increase student engagement in learning	0.38% 1	1.89% 5	6.06% 16	21.97% 58	40.53% 107	29.17% 77	264	4.88
Technology enables teaching and learning opportunities that would not otherwise be available or practical	1.14% 3	1.89% 5	6.44% 17	12.50% 33	32.58% 86	45.45% 120	264	5.10
There are adequate technology resources in my classrooms	18.56% 49	22.35% 59	15.53% 41	20.83% 55	17.42% 46	5.30% 14	264	3.12
I use technology to enhance the curriculum	1.52% 4	2.65% 7	5.30% 14	18.94% 50	39.77% 105	31.82% 84	264	4.88
I am comfortable using technology to support instruction	0.76% 2	1.89% 5	5.30% 14	19.70% 52	32.95% 87	39.39% 104	264	5.00
I am personally comfortable using technology	0.38% 1	1.89% 5	6.82% 18	12.50% 33	35.98% 95	42.42% 112	264	5.09
My school offers adequate professional development opportunities in technology integration	9.85% 26	12.50% 33	16.67% 44	24.62% 65	27.65% 73	8.71% 23	264	3.74
The use of technology supports the school's mission statement and core values	2.65% 7	5.68% 15	10.98% 29	22.73% 60	37.88% 100	20.08% 53	264	4.48
My school has adequate funding for technology	19.70% 52	17.05% 45	21.21% 56	28.41% 75	11.36% 30	2.27% 6	264	3.02
My school has adequate technology support	14.77% 39	18.18% 48	18.56% 49	23.86% 63	18.18% 48	6.44% 17	264	3.32
Students have a good understanding of Internet safety guidelines	7.58% 20	14.02% 37	21.59% 57	28.79% 76	21.97% 58	6.06% 16	264	3.62

Table 8

Table 8 summarizes the tools that students are regularly using within their classrooms. The main tools are for online assessments (30.77%), assignments during class (25%) and learning essential skills (21.92%). They rarely use Google Docs (62.69%), keyboarding (41.15%) and communicating with teachers (37.31%) and students (31.54%).

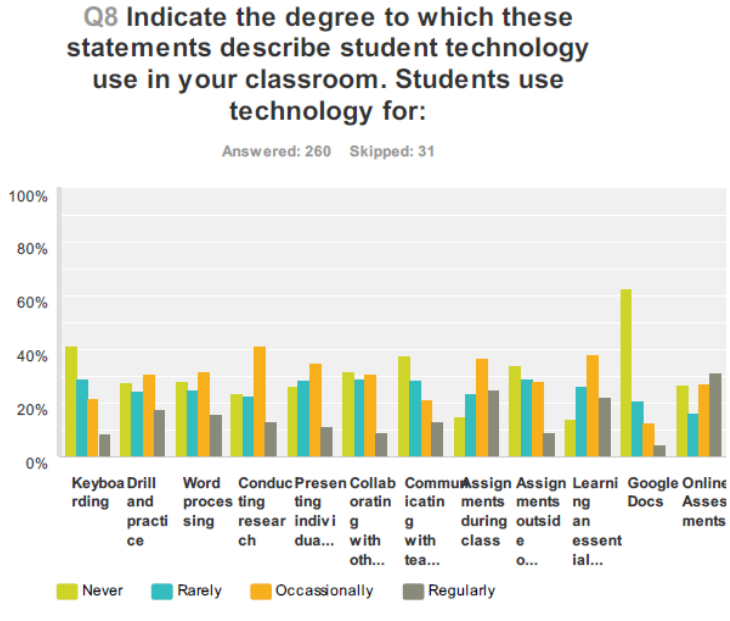


Table 9

Table 9 summarizes the successful integration of technology by students in classrooms by teachers. Over half of the teachers (56.35%) strongly believe that students who utilize technology in their classroom are better prepared for college. They are less inclined to believe that technology integration improves students' communication (21.03%) and collaboration (19.05%) skills improve. Teachers feel that when technology is integrated into the classroom, the students have more opportunities for creative expresison (32.94%), are more engaged in class assignmnents (32.94%) and are more organized (29.37%).

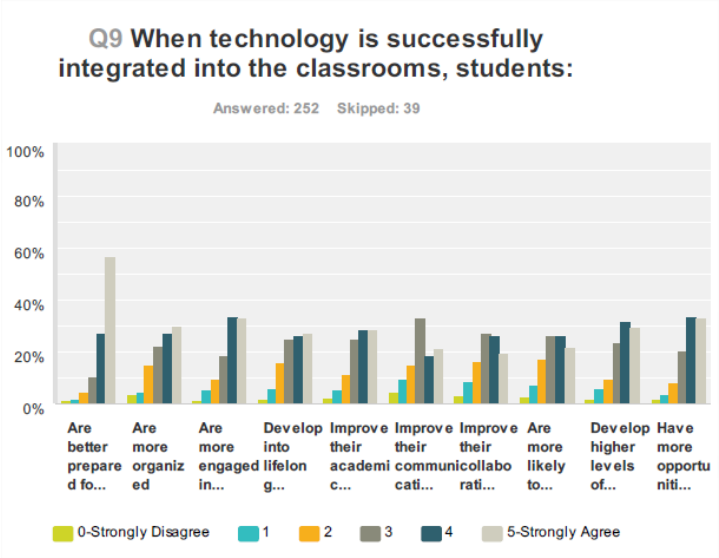


Table 10

Table 10 asks teachers to consider concerns for technology integration in the classroom. The biggest concerns were adequate funding (39.60%), inappropriate material on the Internet (33.33%) and network reliability (33.07%). The additional concerns were pretty evenly divided as follows: cyberbullying (28.97%), student Internet safety (27.49%) and student distractibility (25.60%).

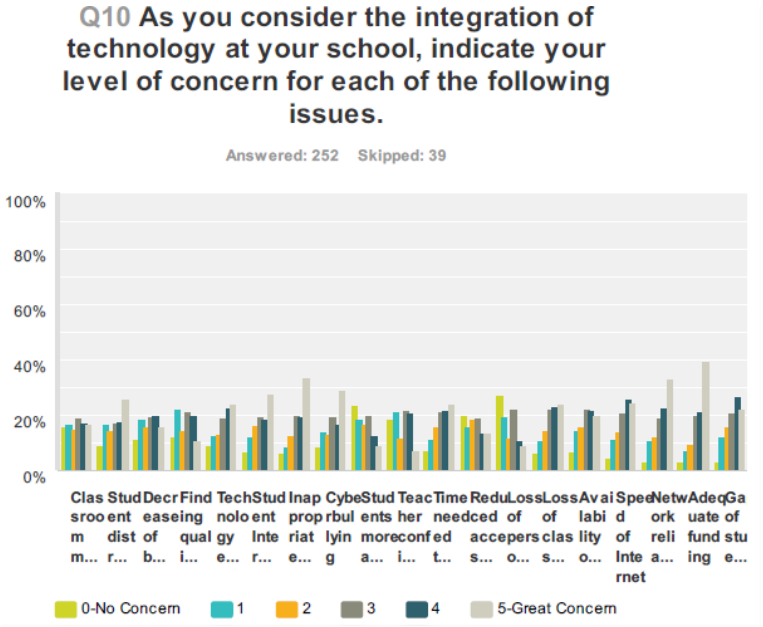


Table 11

Table 11 asks responders to indicate their current skill level on following topics related to each tool. Teachers feel most comfortable in teaching others how to use technology to communicate with faculty and staff (56.00%), effectively organize and manage computer documents (39.20%) and use a SMARTboard (33.20%). The majority of teachers (76.80%) do not know how to use Moodle. Teachers are able: describe ethical issues in the use of technology (71.60%), evaluate online resources (69.60%), create a technology work order (58.40%) and evaluate and select appropriate software (57.60%).

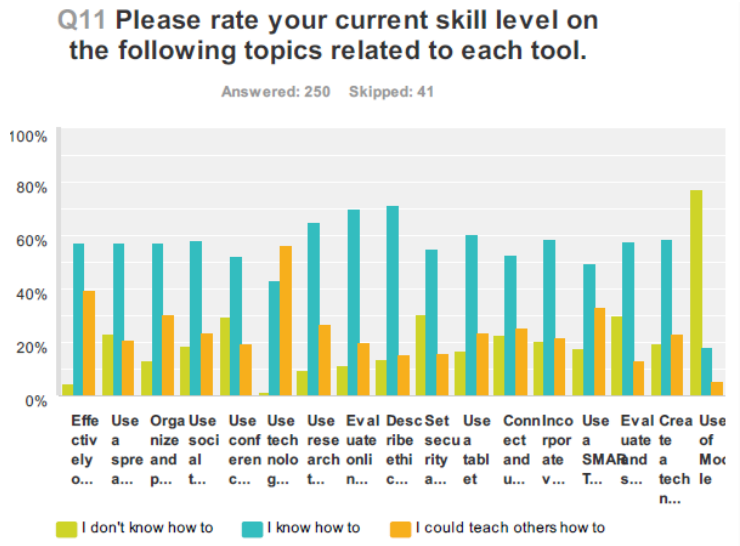


Table 12

Table 12 summarizes the tools that teachers are using while performing their jobs. Many frequently use the technology to conduct Internet research (60.64%), use a SMARTboard (58.57%) and send group emails (52.42%). Some do use district provided software to analyze student data (21.20%) and document cameras (16%). They rarely use social bookmarking (2.02%), student response systems (3.60%) or collaborate with a colleague using Google Docs/Microsoft Live Workspace (3.60%). Over half of the staff sometimes uses a newsreader to read professional online publications (60%).

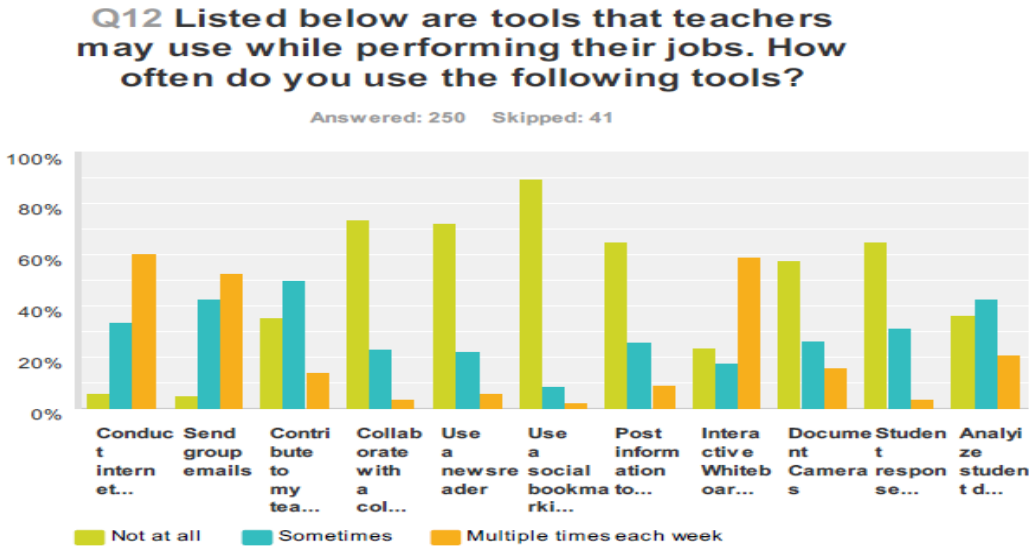


Table 13 shows that the majority of the teachers prefer hands-on (90.36%), interactive (79.92%) and small group collaborative teams (66.27%) when learning about technology integration.

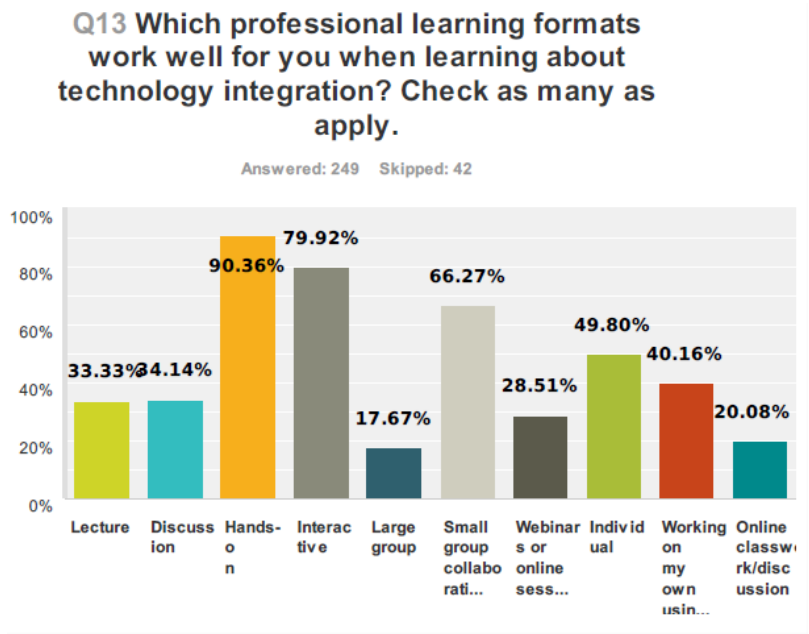
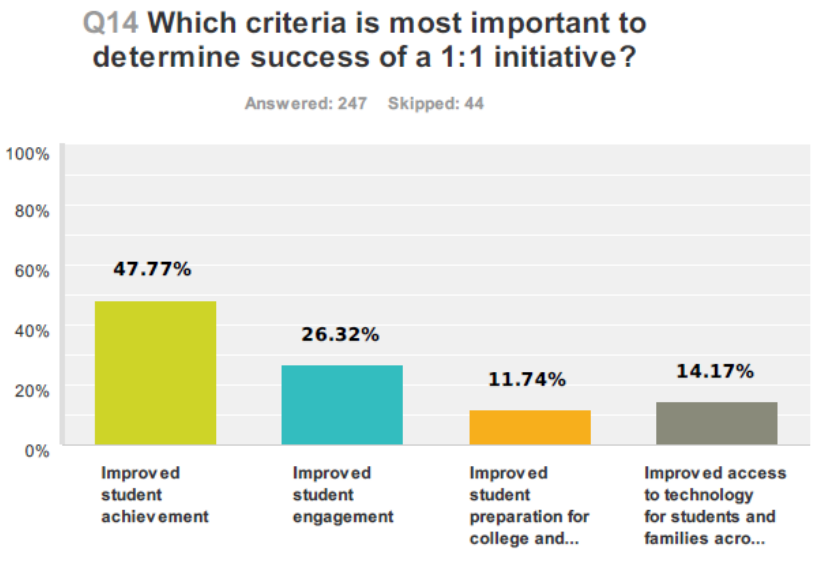


Table 14

Table 14 asks teachers what they felt was the most important criteria to determine the success of a 1:1 initiative. The results are as follows: improved student achievement (47.77%), improved student engagement (26.32%), improved access to technology for students and families (14.17%) and improved student preparation for college (11.74%).



Appendix B – Principal Survey Responses

Table 1
Table 1 shows the breakdown of principals surveyed as follows: elementary had 8 respondents for a return of 40%, middle had 4 respondents for a return of 26.67% and high school had 5 respondents for a return of 33.33%.

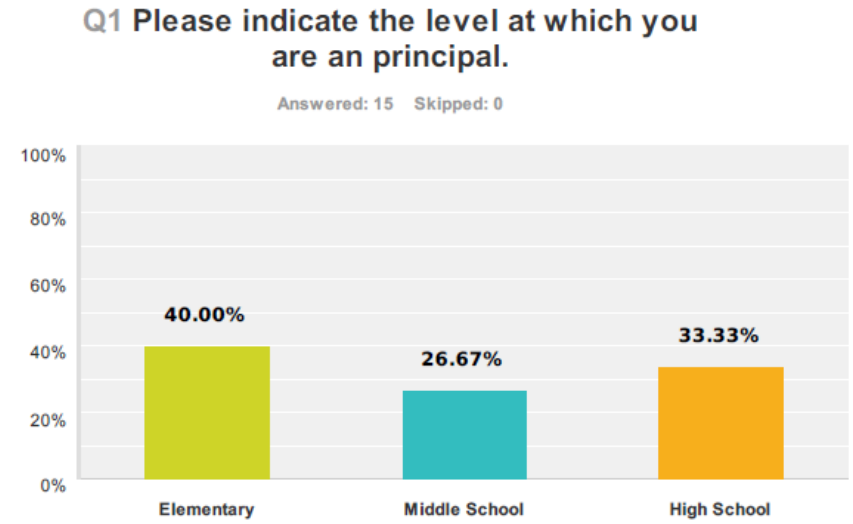


Table 2
Table 2 shows that the Internet connection of principals at home is 86.67%.

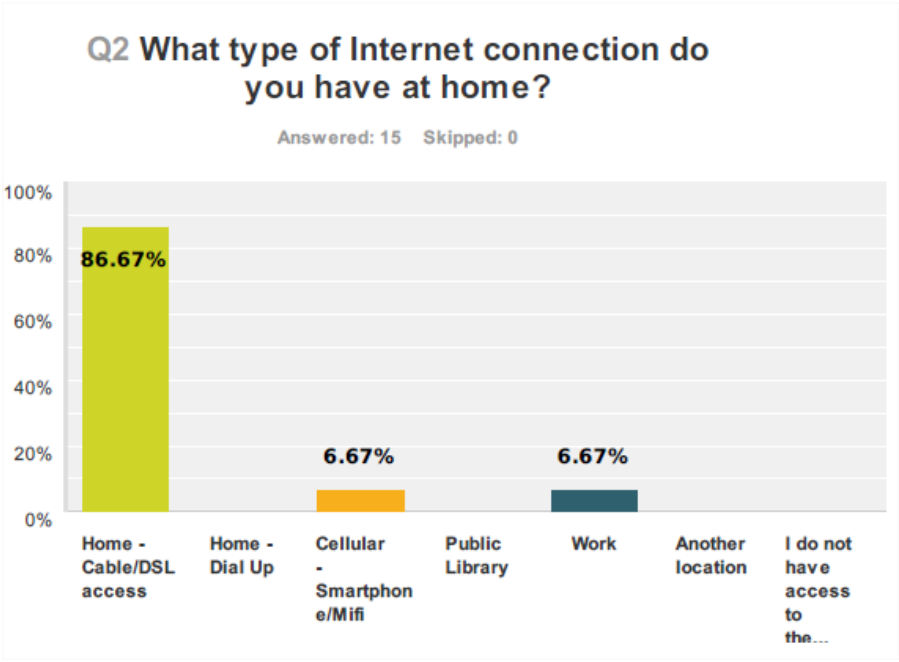


Table 3

Table 3 asks responders to indicate the type of device apart from a computer they regularly use. Responders could pick multiple responses. Laptops were used by 100% of the principals. Computers, tablets and smartphones are used by over 60% of the principals.

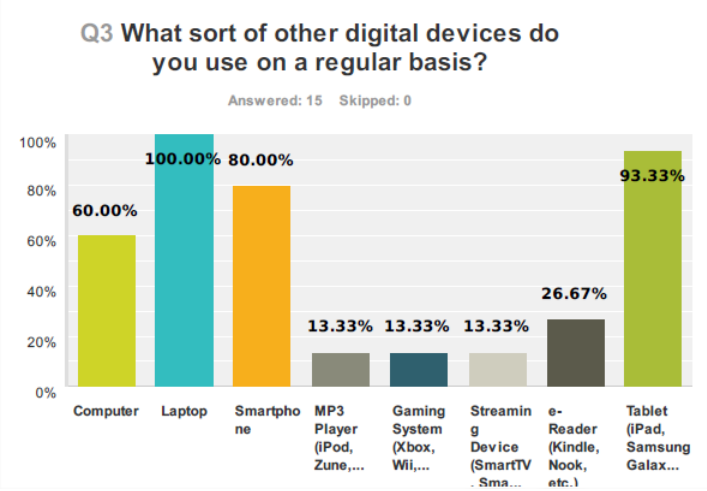


Table 4

Table 4 asks responders to indicate their level of satisfaction with technology access at school for both teachers and students. The data shows that the principals are more satisfied with teachers' access (21.43%) versus students' access (7.69%).

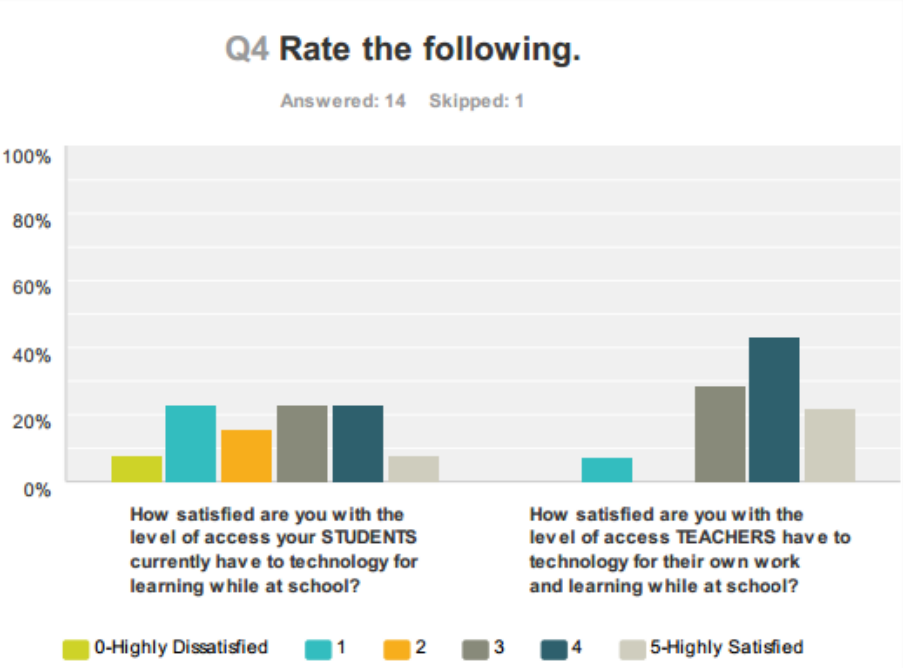


Table 5
Table 5 asks responders to indicate the type of student device they would find the most desirable for student use with 1 being the most desirable and 6 being the least desirable.
Laptop 64.29%
Tablet 28.57%
Chromebook 0%
Desktop 7.14%
E-Reader 0%
Mobile Device (Smartphone, I Pod Touch, etc.) 0%

The results indicate that principals prefer mobile (laptops, tablets, and netbooks) over stationary (desktops). It also indicates that principals do not find E-Readers and Smartphones as adequate student devices.

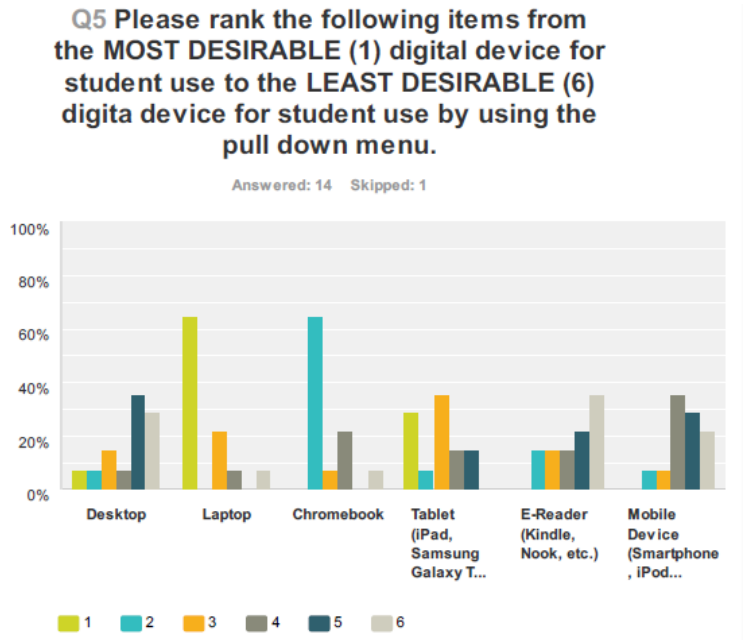


Table 6
Table 6 asks principals to indicate amount of student access to devices they would find the most desirable. The most desirable response was that each student would have their own device use for both at home and at school (71.43%). There is a decisive difference in the data between each student having their own device that they can take home as compared to a digital device that can only be used at school (28.57%). 100% of principals categorize a shared device as the least desirable.

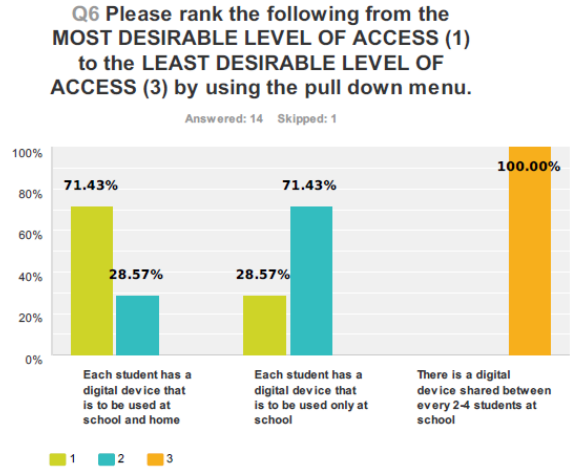


Table 7

Table 7 summarizes the principal's beliefs toward technology. The majority of principals (71.43%) believe that it is important to teach 21st century skills and feel that students would most benefit from having access to a digital device both at home and school (57.14%). They strongly agree that their schools that their schools are not doing a good job of teaching 21st century skills (0%), teaching basic technology skills (0%) and students do not take responsibility for their own learning (0%). It is also noteworthy that there was only 1 principal that felt that their students took responsibitly for their own learning and had adequate technology resources at their school for a 7.14% return level.

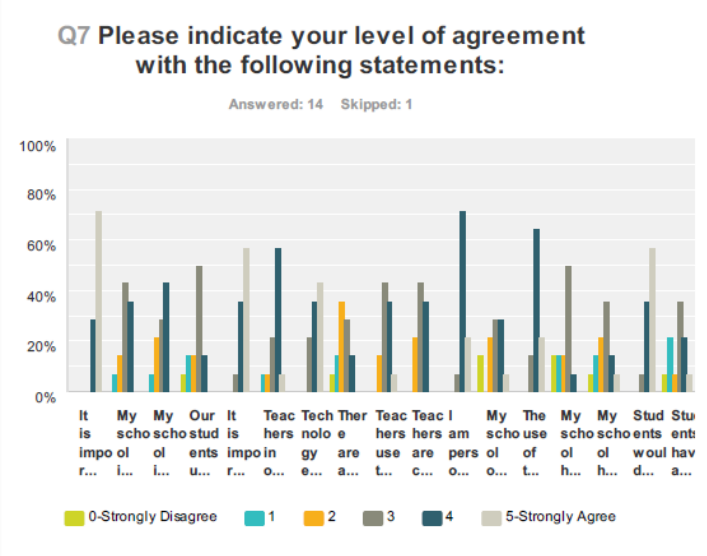


Table 8

Table 8 summarizes the tools that students are regularly using within their schools. The main tools that they are regularly using are drill and practice (21.43%), word processing (21.43%) and conducting research (21.43%). They rarely use technology to collaborate with other students (0%), communicate with teachers (0%) or utilize Google Docs (0%).

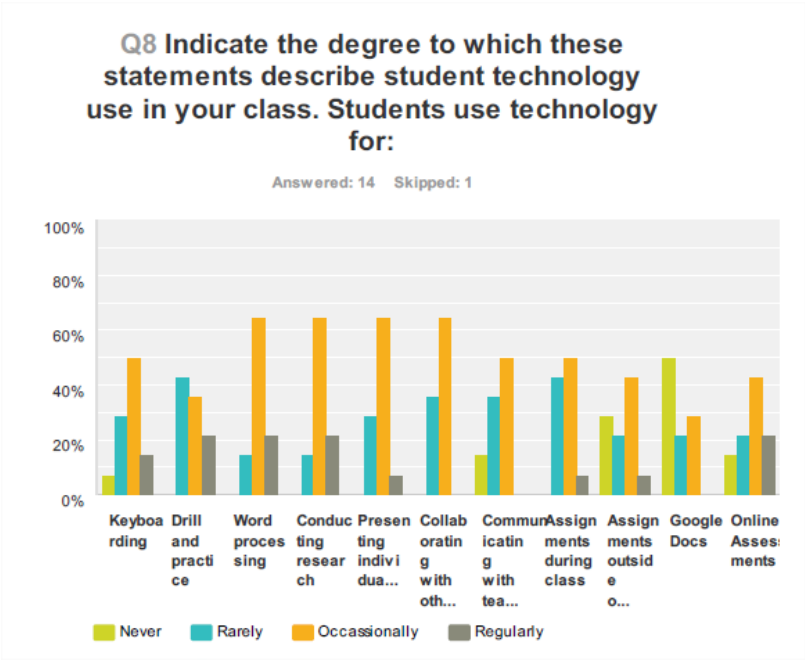


Table 9

Table 9 asks principals to indicate the benefits for students when technology is successfully integrated into the classrooms. Half (50%) of the principals feel that technology will improve students collaboration skills, develop higher levels of information literacy and have more opportunities for creative expression. Over 60% of the principals feel that when technology is successfully integrated into the classrooms that the students will be better prepared for college.

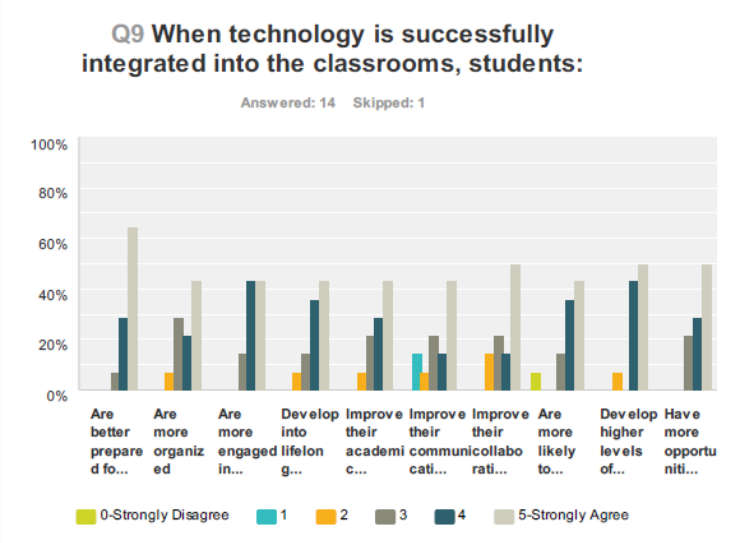


Table 10

Table 10 asks principals to consider concerns for technology integration in the classroom. The biggest concerns were adequate funding (39.60%), inappropriate material on the Internet (33.33%) and network reliability (33.07%). The additional concerns were pretty evenly divided as follows: adequate funding, cyberbullying and students' distractibility (23.08%), classroom management. There were no concerns about students knowing more about technology than the teachers, finding quality resources, loss of personal relationships with students and loss of classroom time due to technical resources.

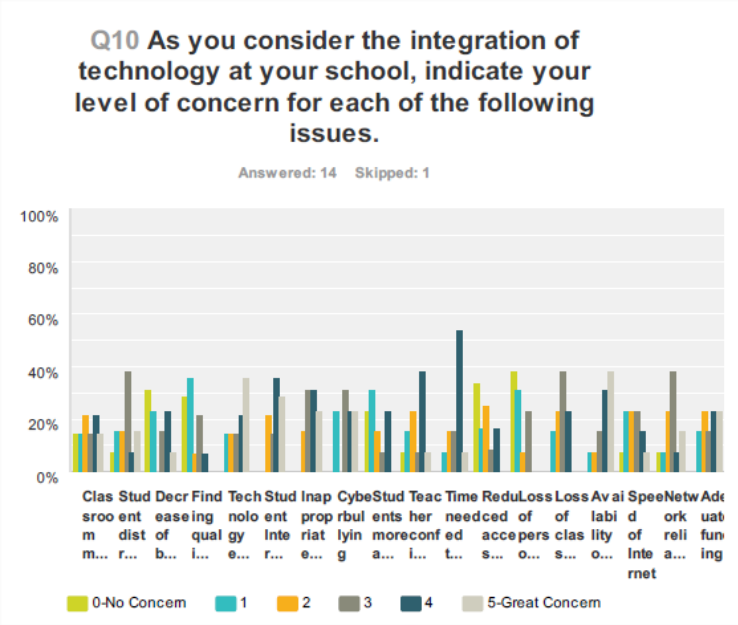


Table 11

Table 11 asks principals to indicate their current skill level on following topics related to each tool. They feel most comfortable in teaching others how to use technology to communicate with parents (61.54%), communicate with staff (53.85%) and effectively organize and manage computer documents (46.15%). The majority of principals know how to describe ethical issues in technology use, use a tablet, and set security and privacy settings on a digital device.

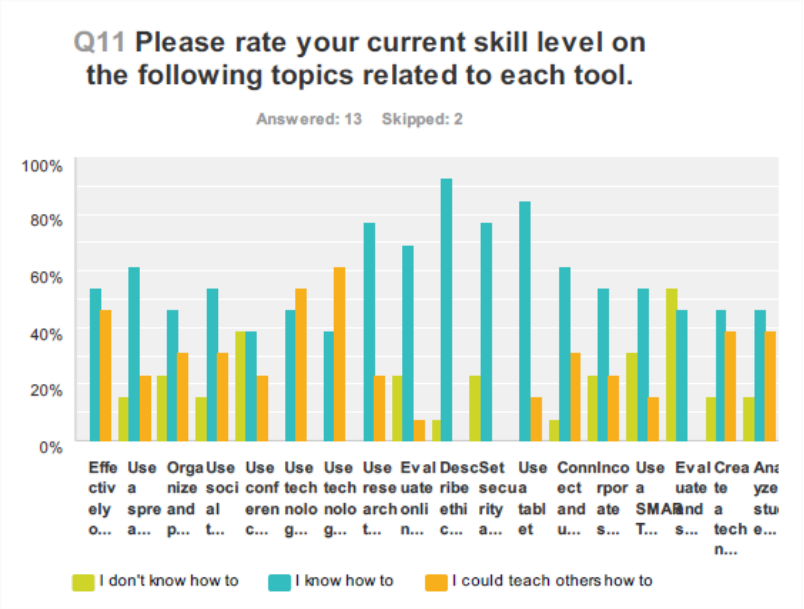


Table 12

Table 12 summarizes the tools that principals are using while performing their jobs. The majority send group emails multiple times each week. Some conduct Internet research (50%) and use Blackboard connect to send voice messages to parents (36.36%) They do not use Twitter (75%) or Google Docs (75%) use a newsreaders (66%), or social bookmarking sites (91.67%).

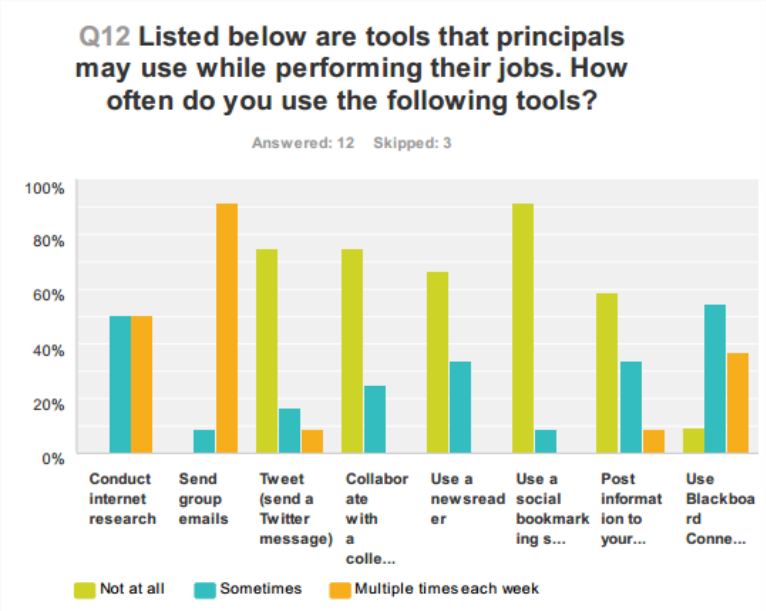


Table 13

Table 13 shows that over 80% of principals prefer hands-on, interactive and small group collaborative teams when learning about technology integration.

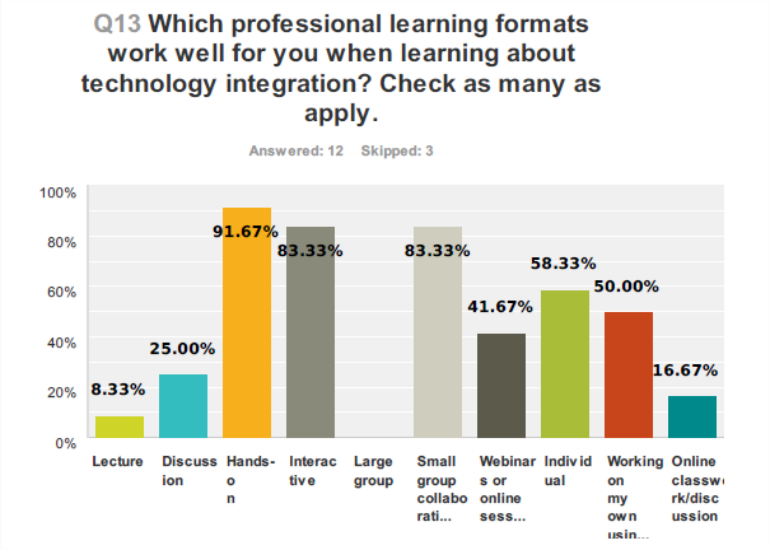
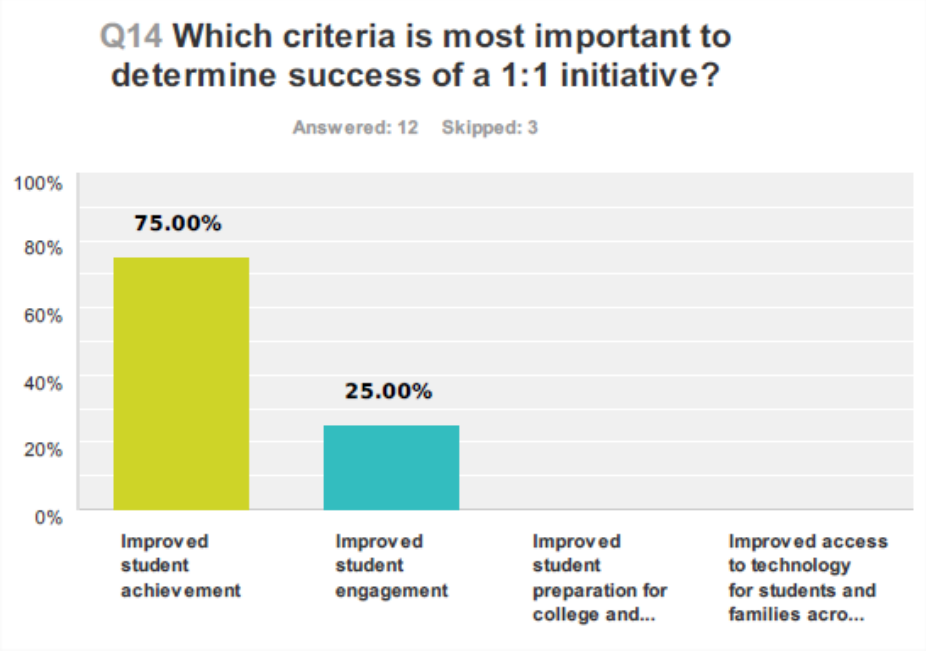


Table 14

Table 14 shows that 75% of the principals felt that improved student achievement was the most important criteria to determine the success of a 1:1 initiative.



Appendix C – District Office Survey Responses

Table 1

Table 1 asks responders to indicate the Internet connection speed that they have available at their home. Over 84.85% of the teachers use a cable or DSL connection.

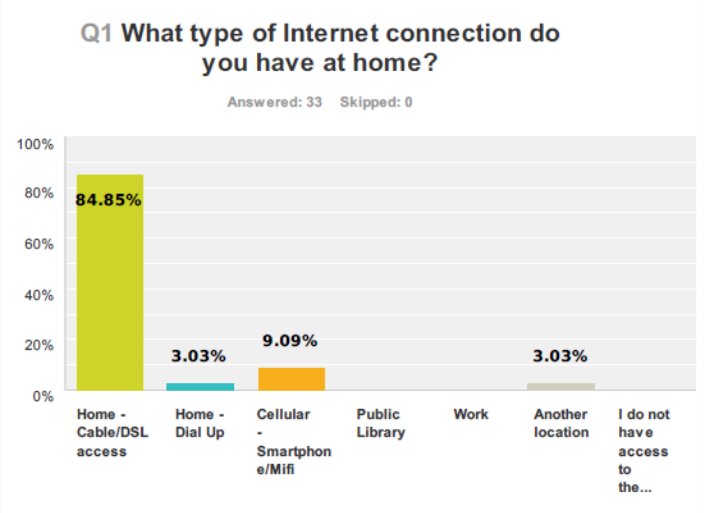


Table 2

Table 2 asks responders from the district office to indicate the type of device apart from a computer they regularly use. Responders could pick multiple responses. Computers, laptops and smartphones are used by over 63% of the district office staff.

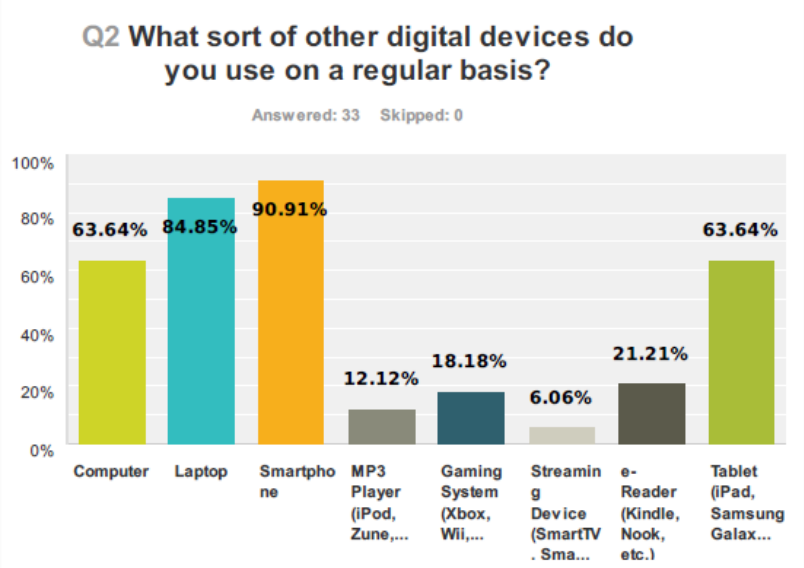


Table 3

Table 3 asks responders to indicate their level of satisfaction with technology access the district office staff currently have access to for use for their job. For this survey 0 was the most dissatisfied and 6 being the highly satisfied. The data shows that 45.16% of the staff is satisfied with their level current level of access compared to 22.58% and 6.45% are less than satisfied.

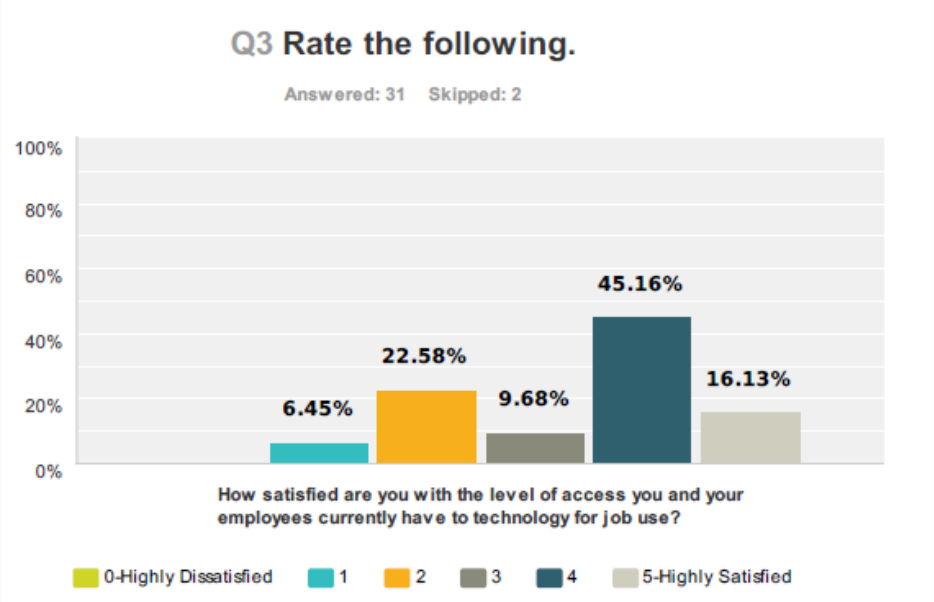


Table 4

Table 4 asks responders to indicate the type of job related digital device that they would find the most desirable for office use with 1 being the most desirable and 7 being the least desirable. The data shows that most of the staff feel that a computer (desktop-29.03% and laptops-48.39%) is the most desirable digital devices for their jobs. Phones are the least desirable (38.71%).

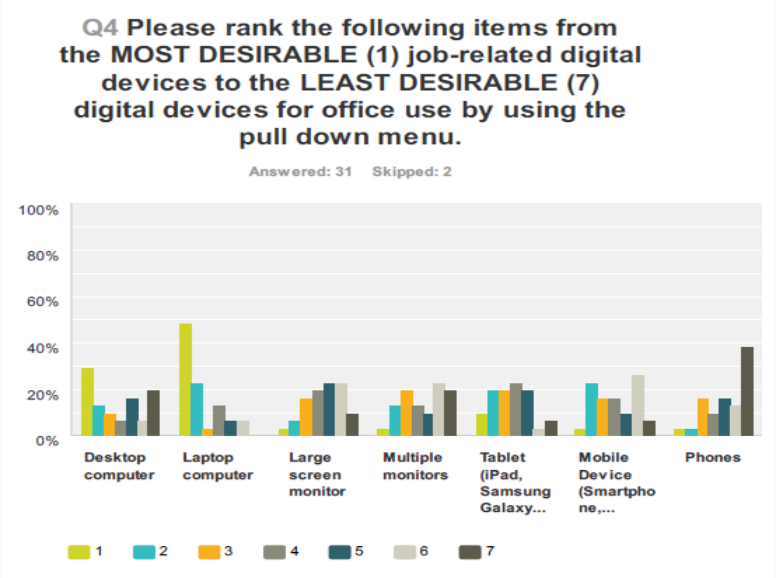


Table 5

Table 5 asks the staff to indicate the level of access that they would find the most desirable for office use with 1 being the most desirable and 3 being the least desirable. The most desirable level of access would be to have a laptop computer for home and office use (67.74%). The least desirable would a mobile app (70.97%).

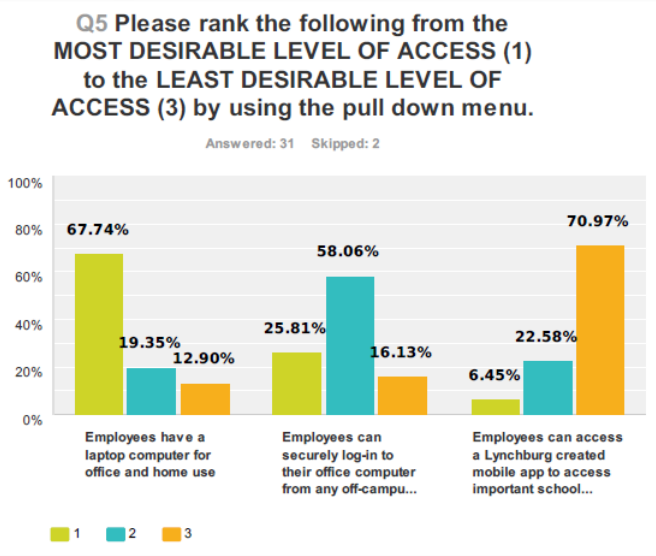


Table 6

Table 6 asks the district office staff to rate themselves on the following topics related to each tool. They feel most comfortable in teaching others how to use technology to communicate with faculty and staff (60%), effectively organize and manage computer documents (53.33%) and use department specific software (53.33%). The majority of principals know how to describe ethical issues in technology use, use a tablet, and set security and privacy settings on a digital device.

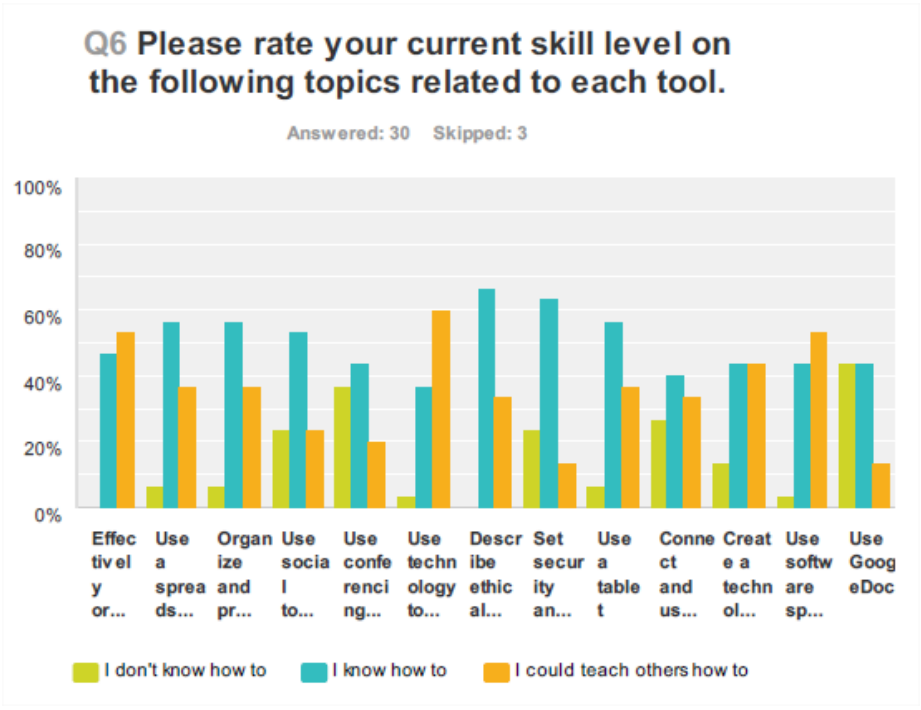


Table 7

Table 7 summarizes the tools that staff are using while performing their jobs. Many frequently use the technology to conduct Internet research (83.33%) and send group emails (73.3%). They do not use Twitter (86.67%) or Google Docs (63.3%). Over half of the staff sometimes uses a newsreader (60%) to read professional online publications.

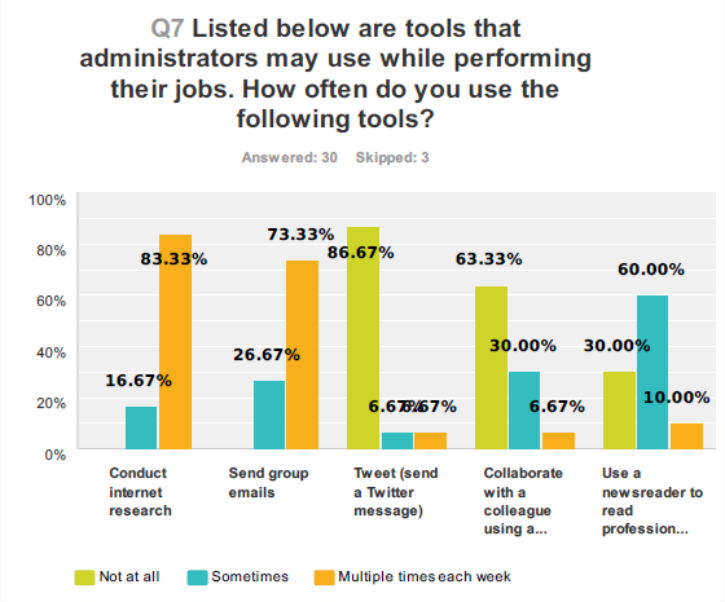


Table 8

In Table 8 the responders were asked which professional learning formats work best for you when learning about technology integration. The responses show that the majority of the teachers prefer hands-on (96.67%), interactive (80%) and small group collaborative teams (73.33%) when learning about technology integration. The least desired was large group (20%) and online classwork/discussion (20%).

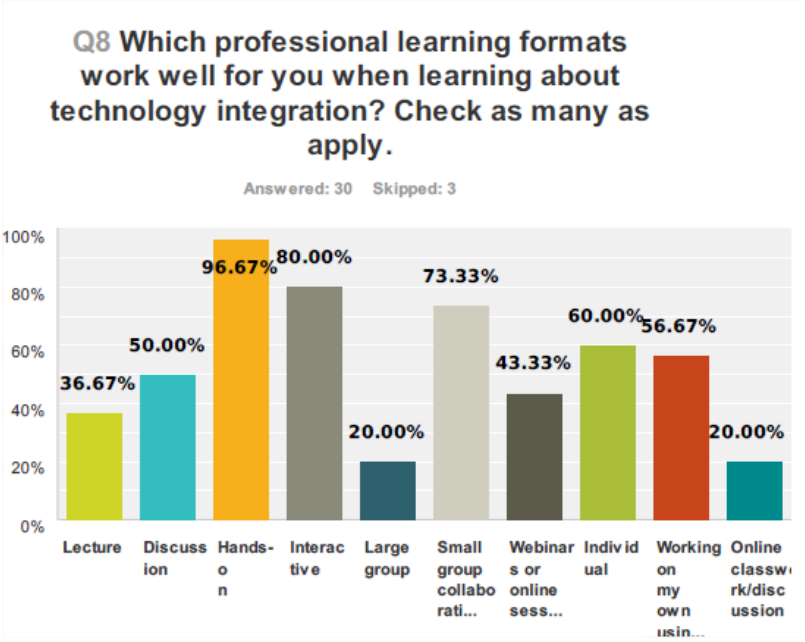
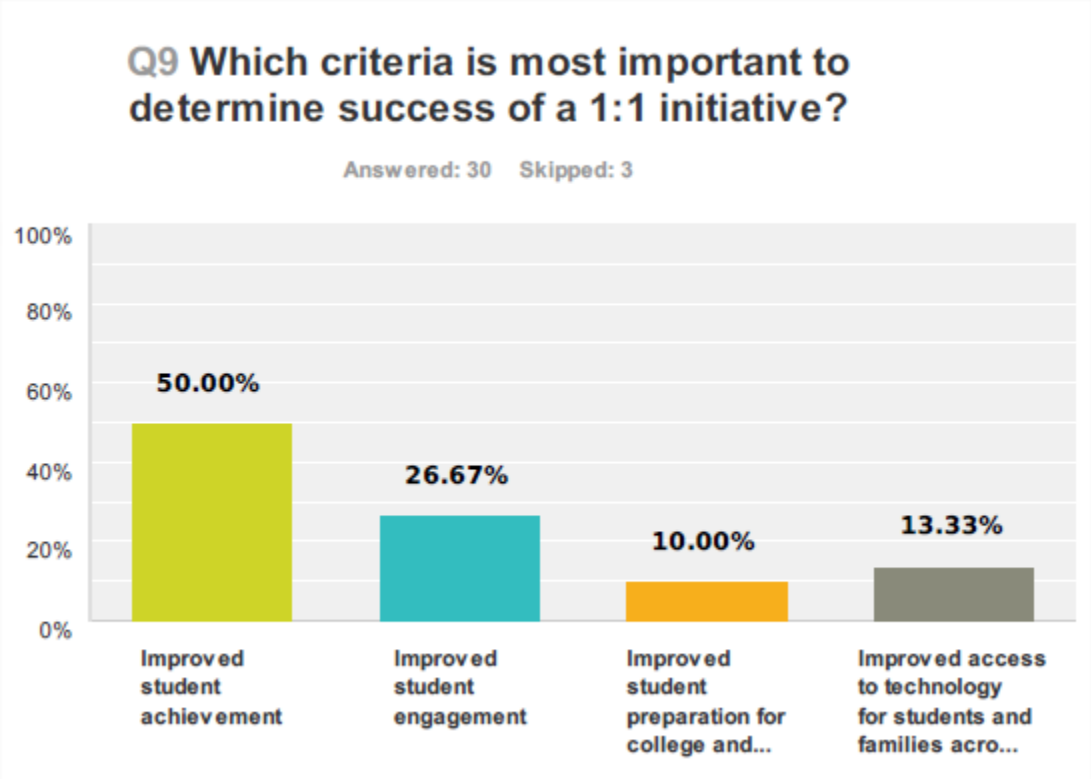


Table 9

A table 9 show that 50% of the staff responded that improved student achievement was the most important criteria to determine the success of a 1:1 initiative.



Appendix D – Parents Survey Responses

Table 1
Table 1 asks responders to indicate the Internet connection speed that they have available at their home. Over 91.17% of the families use a cable or DSL connection.

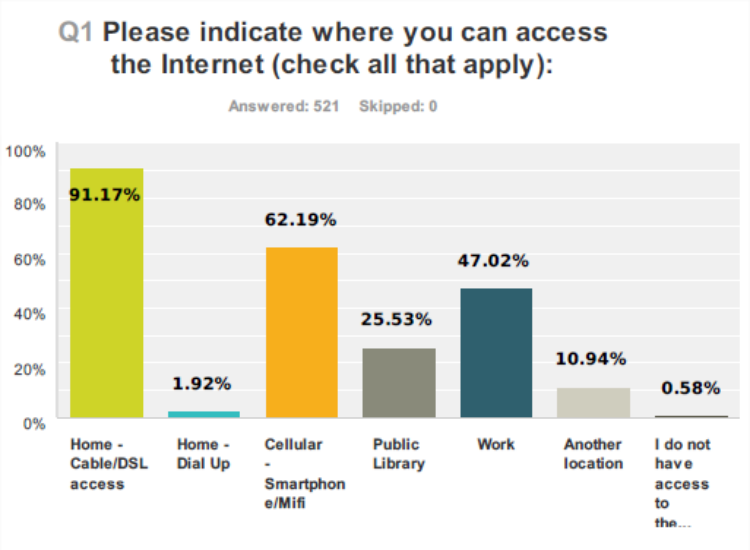


Table 2
Table 2 asks responders to indicate the types of devices they regularly use. Responders could pick multiple responses. Computers, laptops and/or smartphones are used by over 80% of the parents. Over half of the parents use a tablet device (54.13%).

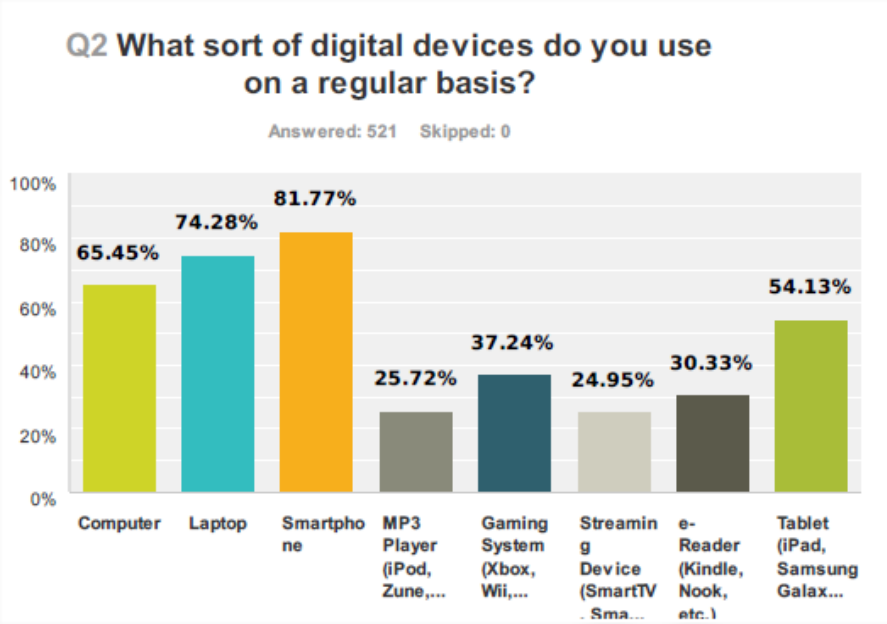


Table 3
Table 3 asks responders to indicate the type of device that their children have access to at home. Responders could pick multiple responses. Laptops, smartphones and gaming systems are used by over 60% of the students. Over half of the students have access to a computer (56.56%) or tablet device (53.09%). at home.

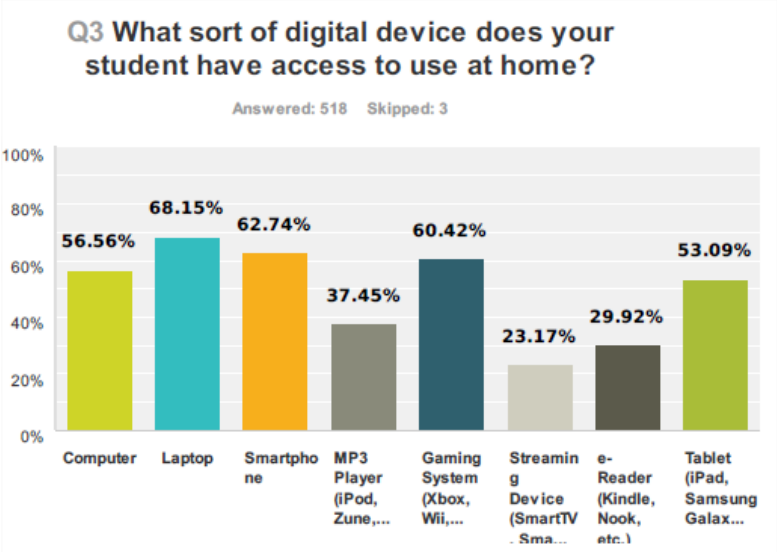


Table 4
Table 4 asks responders to indicate how often that they check their email. Over 80% of parents check their email on a daily basis.

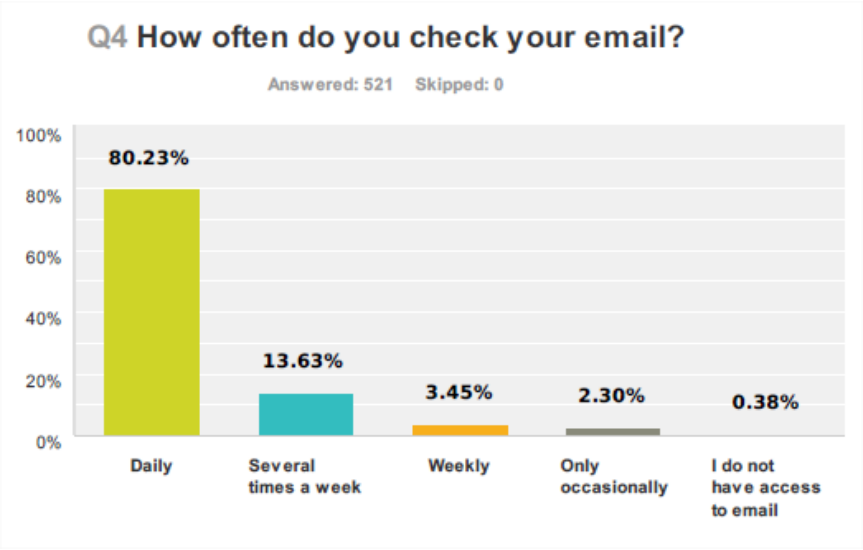


Table 5

Table 5 asks responders to rate their level of comfort when using technology. Many parents feel extremely comfortable (49.52%) using technology.

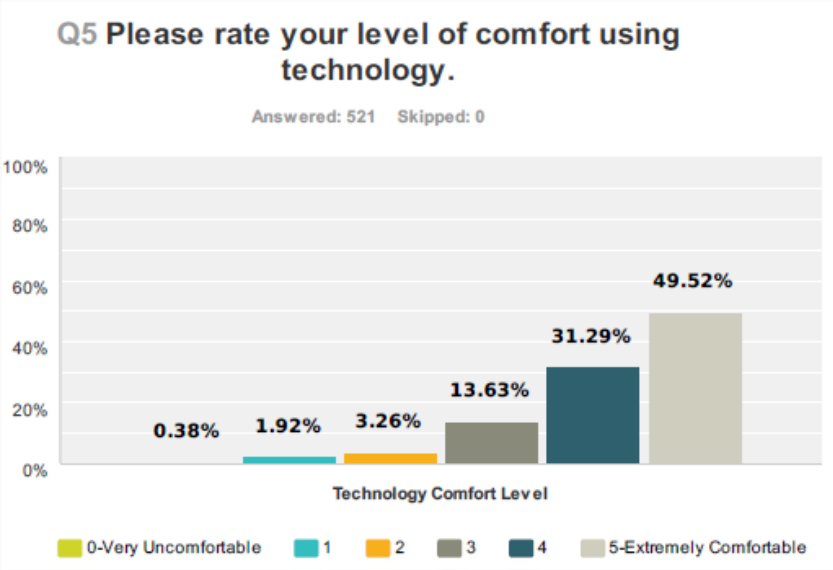


Table 6

Table 6 asks parents to indicate their level of agreement with the following statements. The majority of parents feel that it is important to teach the 21st century skills of critical thinking, communication and collaboration (77.23%) desirable response was that each student would have their own device use for both at home and at school. 81.80% of parents responded that it is important for parents to monitor student technology used at home. Only 12.45% of the parents responded that there are adequate technology resources in their child's classroom. While only 17.71% responded that the technology supported the mission statement at their child's school.

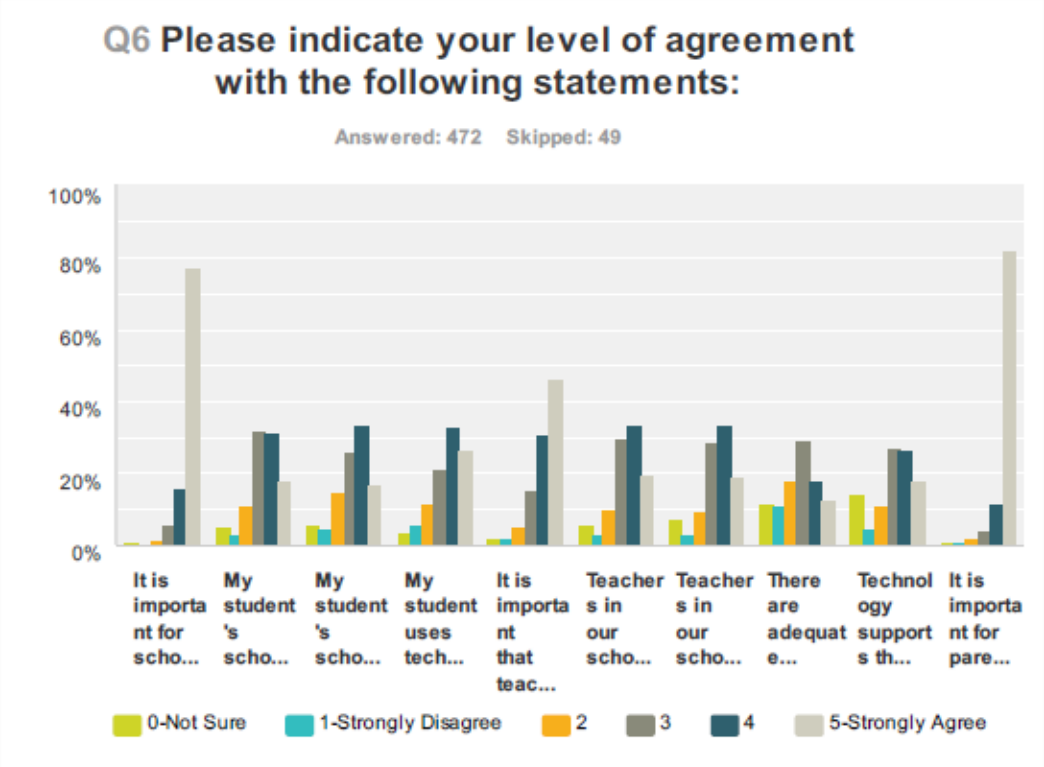


Table 7
Table 7 asks parents to indicate the type of student device they would find the most desirable for student use with 1 being the most desirable and 6 being the least desirable.

Laptop 49.15%
Tablet 23.73%
Chromebook 7.20%
Desktop 15.04%
E-Reader 2.12%
Mobile Phone or Smartphone 2.75%

The results indicate that parents prefer mobile (laptops and tablets) over stationary (desktops). It also indicates that parents do not find E-Readers and Smartphones as adequate student devices.

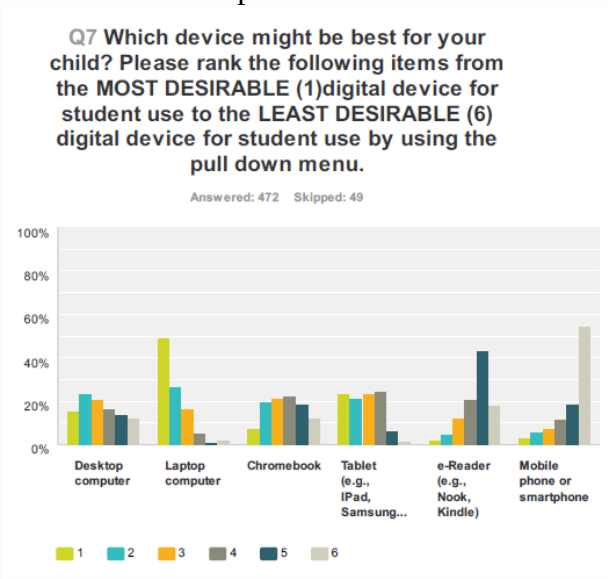


Table 8
Table 8 asks parents to indicate amount of student access to devices they would find the most desirable. The most desirable response was that each student would have their own device use for both at home and at school (76.06%). There is a decisive difference in the data between each student having their own device that they can take home as compared to a digital device that can only be used at school (19.28%). 84.96% of parents categorize a shared device as the least desirable.

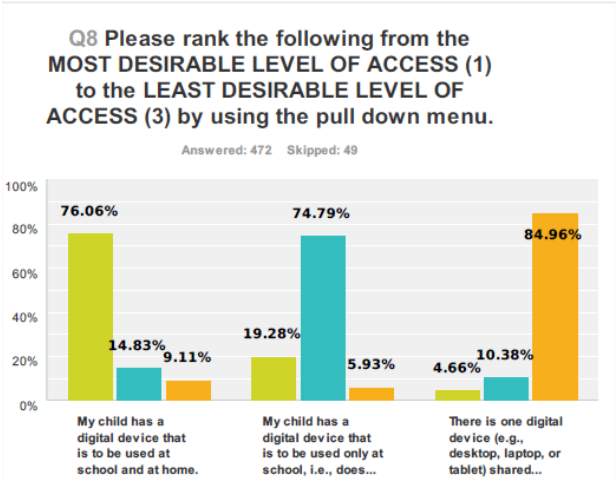


Table 9

Table 9 asks parents to respond to how well the schools had prepared students in following areas: online safety (14.50%), honest technology use (14.10%) and basic technology skills (13.22%). Parents responded that the schools did not teach the following very well: evaluatoin of accuracy of online information (24.84%), utilizing technology for analyzing mathematical data (23.78%) and project collaboaration (21.11%).

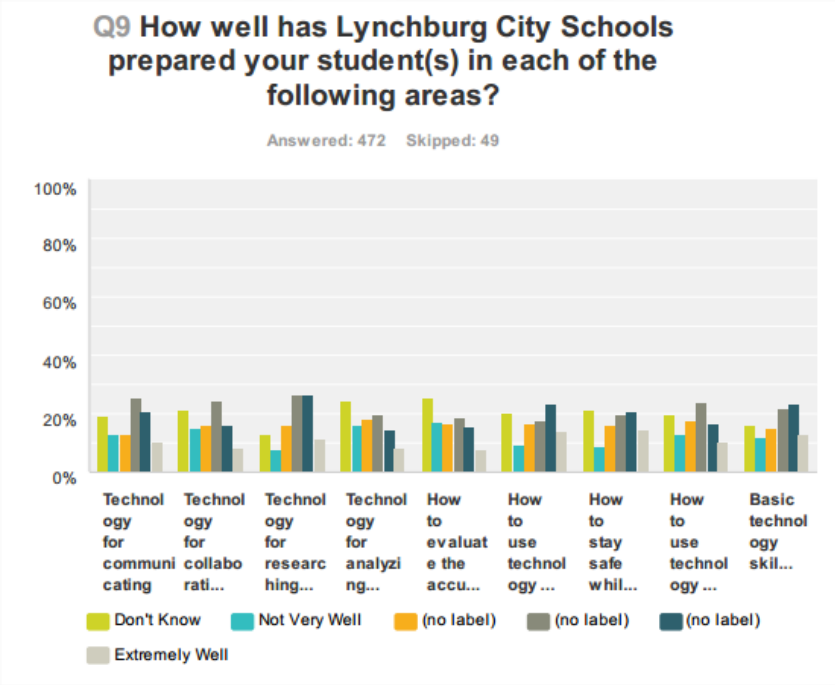


Table 10

Table 10 asks parents to indicate the most desirable school communications use with 1 being the most desirable and 8 being the least desirable. The results indicate that parents prefer emails (51.62%) and voicemails (14.04%) over social media (31.75%), texts (21.17%) and local television and newspaper (27.43%).

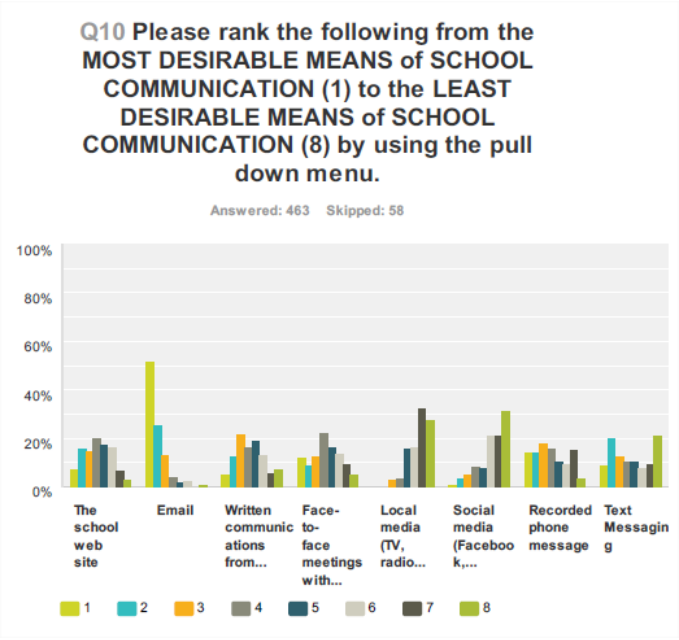


Table 11
Table 11 asks parents to evaluate their child's school website. The results indicate that less than 21% parents feel that the website has accurate information (20.48%), provides the information and news that I need (19.74%), is current and up-to-date(17.07%) and is easy to navigate (18.56%).

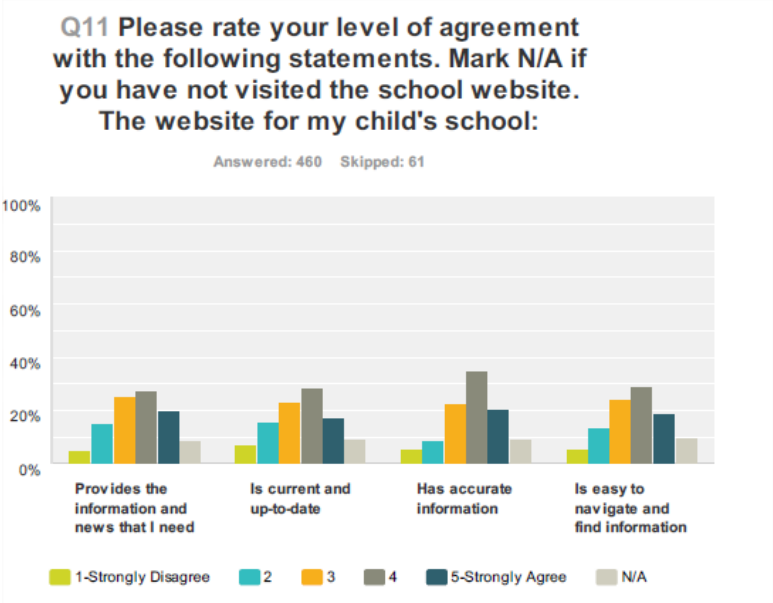
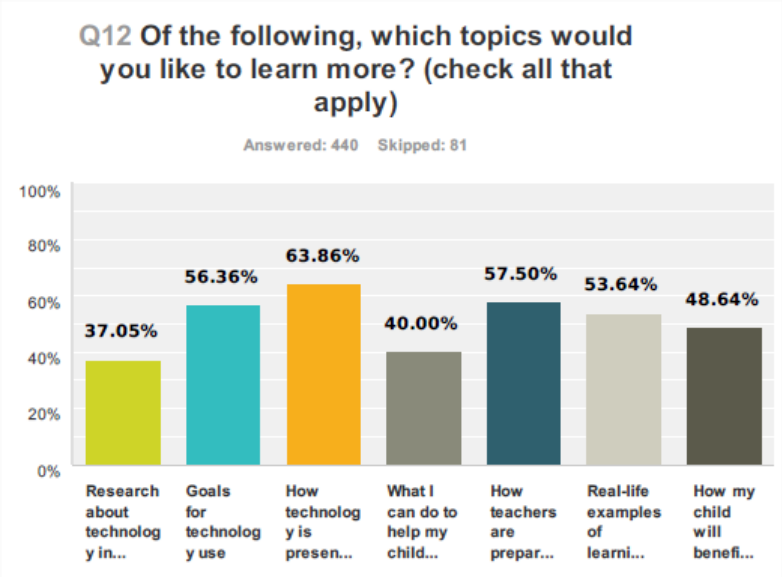


Table 12
Table 12 asks parents to indicate the topics that they would like to learn more about.

Current technology use 63.86%
Teachers' technology preparation 57.50%
Goals for technology use 53.36%
Real-life examples of technology use 53.64%
Benefits for their children from technology use 48.64%
Research about technology education 37.05%



en technology is successfully
will better prepare their children

for high school, college and work. Over 40% responded that technology would help their child become an independent learner, be able to collaborate and have global networking skills. The following were also ranked:

Development as life-long learners (36.68%)
Engagement with homework (32.97%)
Organization skills (31.44%)
Critical thinking skills (30.79%)
Enhanced creativity (30.94%)

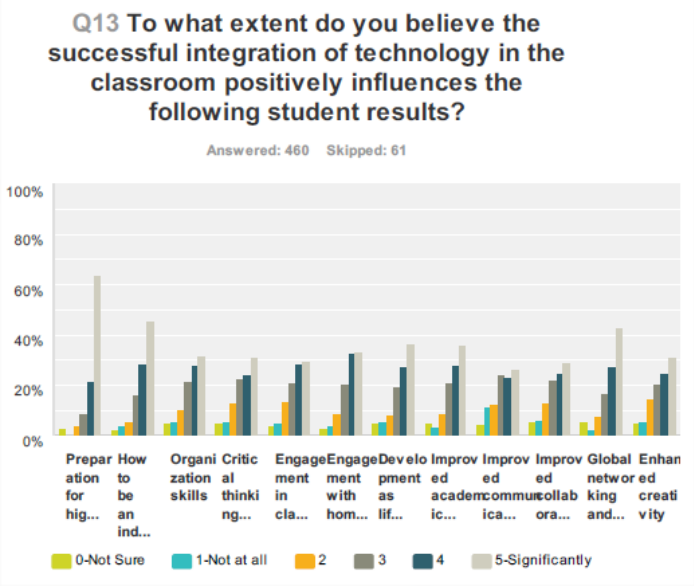
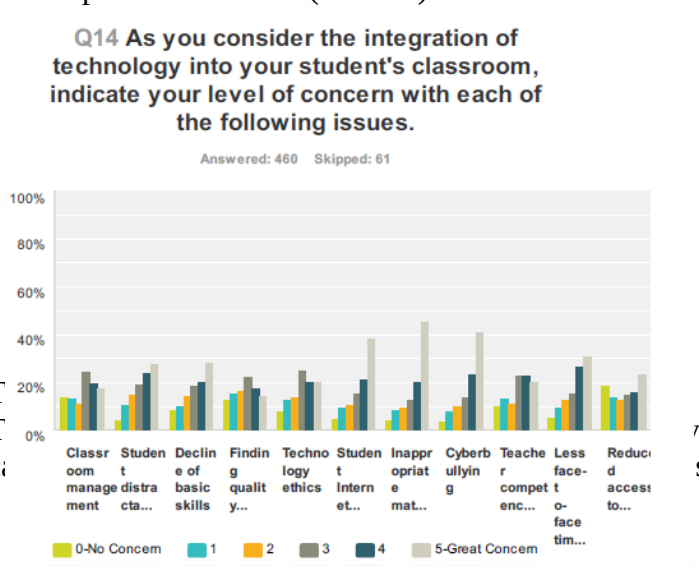


Table 14
Table 14 asks parents to consider concerns for technology integration in the classroom. The biggest concerns were inappropriate material on the Internet (45.41%), cyberbullying (40.87%), and student Internet safety (30.94%). The additional concerns were pretty evenly divided as follows: decline of basic skills (28.17%), student distractibility (27.51%) and reduced access to hard copies of textbooks (23.70%).



T
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ved student preparation for college and success of a 1:1 initiative.

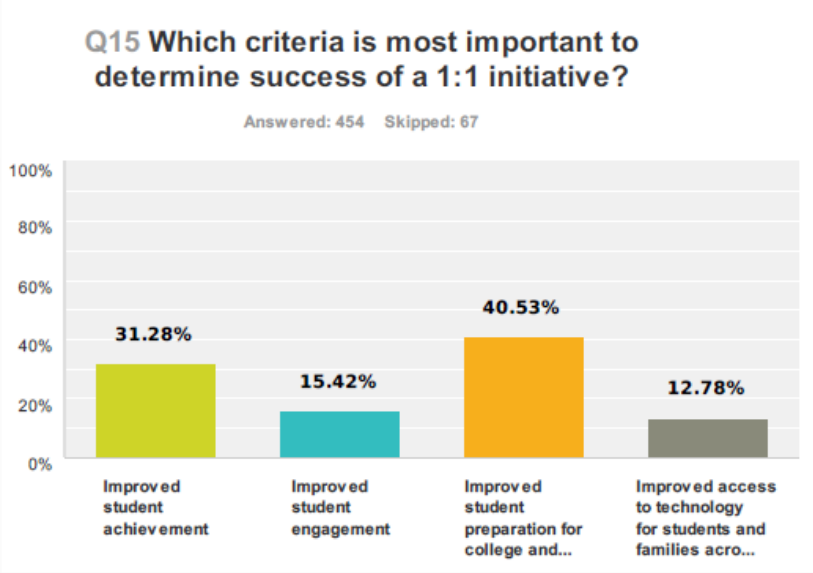
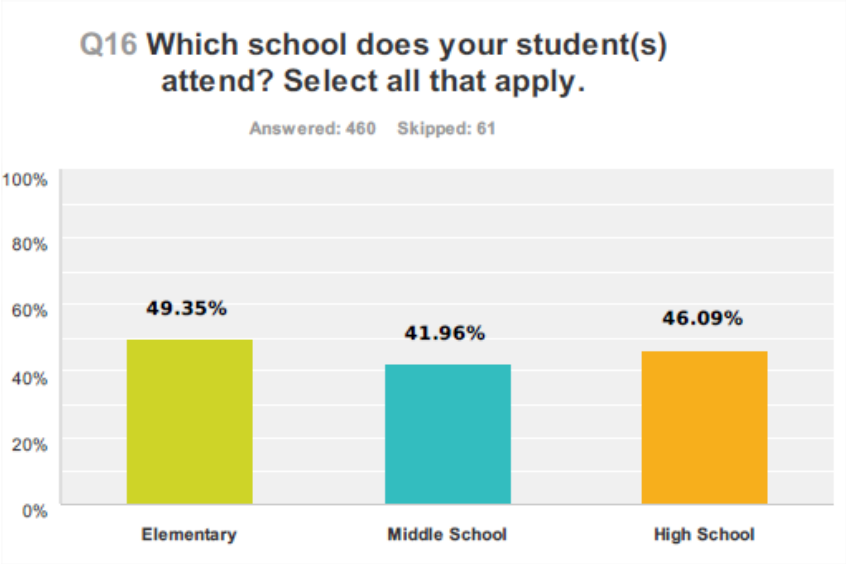


Table 16

Table 16 asks responders to indicate which school their child attends. There were 460 parents that responded to the survey. There were 227 elementary parents for a return of 49.35%. There were 193 middle school parents for a 41.96% return level. There were 212 high school parents for a 46.09% return level.



Appendix 2 - Lynchburg Communication Plan Recommendations

Phase	Focus	Person/Group Involved	Recommended Outlets	Audience
Discovery	•Convincing Your Constituents •"Heads Up" about what will be coming •Listening to constituents input •Technology leadership committee formed •Program mission created & shared	•School/district leadership •School/district support organizations •Writer(s) •Webmaster	•School newsletter •Presentations by leadership to constituents •Open house events •Focus groups •Surveys •AFAQs •Social networks •Website(s)	•Key Constituents •Teachers •Parents •Students •Community members
Direction	•Share the "Why's" •Communication of goals or "How's" •Share program details including cost, hardware, software, educational plans •Communicate challenges that WILL occur	•School/district leadership •School/district support organizations •Technology leadership committee •All faculty •All staff •Multimedia producers •Writer(s) •Webmaster	•FAQs •Faculty meetings •Publication of committee minutes •School/district leadership blog •Multiple open community meetings and presentations •School newsletter •Press releases •Video productions •Social networks •Website(s)	•All Constituents •Teachers •Parents •Students •Community members
Implementation	•Device rollout •Reinforce program mission and goals •Review expected challenges •Drive program excitement	•School/district leadership •Technology leadership committee •Technology support staff •Multimedia producers •Writer(s) •Webmaster	•Wide publication of FAQs •Multimedia resources showing device distribution/rollout, interviews with teachers & parents •Interviews with designated school/district representatives •School newsletter dedicated to rollout •Press releases •Social Networks •Website(s)	•All Constituents •Teachers •Parents •Students •Community members
Milestones	•Informing all constituents and stakeholders about success and/or challenges •Stay ahead of challenges or perceived challenges	•School/district leadership •Technology leadership committee •Designated school/district spokesperson •Writer(s)	•Multimedia interviews •School newsletter or dedicated publication •Press release •Leadership blog •Website(s)	•All Constituents •Teachers •Parents •Students •Community members •Community at large
On Going	•Maintain the flow of information to constituents •Maintain levels of support and excitement •Emphasize student and/or programs educational leadership achievements	•School/district leadership •Technology leadership committee •Multimedia producers •Writer(s) •Webmaster	•Published multimedia presentations with program highlights •Constituent interviews •School/district leadership public speaking engagements •Leadership blog •Social networks •Website(s)	•All Constituents •Teachers •Parents •Students •Community members

Appendix 3 – LCS-ONE Community Launch Documents

Free WiFi Locations

Many local businesses and organizations provide free wireless internet (WiFi). Below are a few examples of locations around the city where WiFi is available to the public.

All Lynchburg City Schools
Lynchburg Public Library
McDonald's
Chick-fil-A
Panera Bread
Starbucks
Barnes & Noble

Lynchburg City Schools
3550 Young Place
Lynchburg, VA 24501
(434) 477-5900
www.lcsedu.net/lcs-one

LCS-ONE
COMMUNITY LAUNCH

A TRADITION OF EXCELLENCE FOR ALL

LCS
LYNCHBURG CITY SCHOOLS

LCS-ONE
Educating in the 21st Century

Lynchburg City Schools is embarking on a new and exciting journey—one that will support the LCS mission of, "Every Child, By Name and By Need, to Graduation." Please join us as we set a course for meeting the 21st Century needs of our students through our LCS-ONE initiative, which will provide a personal computing device for students in grades 4 through 12.

What is a Chromebook?

A Chromebook is an internet-optimized laptop, constructed to be lightweight, durable and provide access to a huge suite of web applications. Chromebooks run the Google ChromeOS, which is extremely secure, user-friendly and designed from the very beginning to work with the cloud.

Why Chromebooks instead of another device?

Several factors make Chromebooks the most compelling option:

- Cost much less than a traditional laptop, making it an economically great choice.
- Has incredibly fast start time and long battery life, so the focus in the classroom will be on the students and the lesson, not the technology.
- Integrates with the Google cloud, which means student data is always backed up.
- Like any other laptop, Chromebooks have a full-size keyboard and beautiful display.

First Year

During the 2014-2015 School Year, all 9th-grade students at both E.C. Glass and Heritage high schools will receive an LCS-issued Chromebook. Chromebooks will be turned in at the end of the school year and reissued the following school year. In the 2015-2016 school year, an additional two grade levels at each high school will be supplied with Chromebooks. By the end of the 2016-2017 school year, all high school students in Lynchburg City Schools will have a device. In the academic years that follow, LCS will continue with the plan to provide Chromebooks to all students in grades 4 through 8.

Frequently Asked Questions

Q: What is LCS-ONE?
A: In a one-to-one teaching and learning environment, each student is provided access to a personal, mobile computing device. When students are in class, the laptop is in their immediate proximity and is used regularly and with purpose. In some grades the computers will be based in classrooms and in some students will carry them from class to class.

Q: When will my student get a device?
A: This project is being implemented at the high school level over a three-year period beginning in the fall of 2014. Additionally, students at the middle and elementary schools will receive devices, by grade level, over the subsequent school years. Please note that some students have already received devices as part of this initiative.

Q: What do you want to accomplish with this technology?
A: Our goal is to improve student learning. To accomplish this, we will use the technology to increase student engagement in the classroom and encourage collaboration amongst peers. This aligns with district efforts to create compelling student curriculum, build relationships that support learning, use project-based learning and ensure that students learn 21st Century skills.

Q: How will you pay for this?
A: Funding for the LCS-ONE initiative comes from State and Federal technology funds. These funds are designated at the State and Federal levels for educational technology use only.

Q: What happens if my child's computer is damaged, lost or stolen?
A: The district is currently developing policies to handle these situations. These policies will be similar to other school-issued property that students receive, such as text books.

Q: What about internet safety?
A: The district filters internet content on its networks. LCS is committed to educating students and parents on how to be safe on the internet. As students receive their computers we will cover cyber-safety. Parents also will be provided with tip sheets and opportunities to learn how they can support safety on their home network.

Q: Will there be IT support for the project?
A: Each school has an assigned DART (Data Analysis Resource Teacher), a certified teacher who will work with teachers and students to ensure that the technology is integrated into the on-going instructional program at the school. Technicians are assigned to one or more schools to provide computer repairs and technical support. Professional development and programming for parents will also be supported by a district-level technology integration team consisting of staff from the Academics and IT Departments.

Q: What will the implementation be like at my school?
A: While there will be certain standardization across the district with regard to infrastructure, devices and policies, each school will have its own team to work out the best implementation for their location and programs.

Q: How much of my child's day will be spent on the computer?
A: The computer should be seen as a tool, not a replacement for a teacher. Students will periodically use their computer throughout the day, as required by curriculum and instructional staff. Things like discussion, science experiments, hands-on activities, seminars and presentations will still be part of the school day.

Q: Where can I learn more about LCS-ONE?
A: The website for LCS-ONE is:

http://www.lcsedu.net/lcs-one/

Please note that this site is still under development and we will continue to update it with more information.

LCS ONE

LCS-ONE
COMMUNITY LAUNCH

March 25, 2014
IT Center (3550 Young Pl.)
5:00-7:00 p.m.

- **Round Table Discussion** 5:00-6:00 p.m.
- **Q&A** 6:00-6:30 p.m.
- **Keynote – Rushton Hurley** 6:30-7:00 p.m.

Lynchburg City Schools is embarking on a new and exciting journey—one that will support the LCS vision of, "Every child, by name and by need to graduation." Please join us on March 25th as we set a course for meeting the 21st Century needs of our students through our LCS-One initiative, which will provide a personal computing device for students in grades 4 through 12. We will have leaders in the areas of education, technology, and business on hand to answer questions and provide details as we map out the future of education for our students.

Event to include:

- **Industry Technology Leaders**
- **Door Prizes**
- **Refreshments**
- **Shuttle Buses from ECG at 4:00 & 4:30**

LCS ONE

Appendix 4 – Sample AUPs

OHIO HI-POINT
CAREER CENTER

Student/Parent Technology Handbook & Acceptable Use Policy 2013-2014

COMPUTER SPECIFICATIONS

You can find out more information about District issued laptops and update to this student handbook at:

www.ohiohipoint.com

TERMS OF THE LAPTOP LOAN

Terms
You will pay a nonrefundable annual use and maintenance fee of $50 on or before taking possession of the property. You will comply at all time with Ohio Hi-Point Career Center's Student/Parent Laptop Handbook and Acceptable Use Policy. Any failure to comply may terminate your rights of possession effectively immediately and the District may repossess the property.

Title
Legal title to the property is in the District and shall at all times remain in the District. Your right of possession and use is limited to and conditioned upon your full and complete compliance with this Agreement and the Student/Parent Laptop Handbook.

Loss or Damage
If the property is damaged, lost or stolen, you are responsible for the reasonable cost of repair or its fair market value on the date of loss. Loss or theft of the property must be reported to the District by the next school day after the occurrence. A table of estimated pricing for a variety of repairs is included in the Student/Parent Laptop handbook. Seniors must clear all records and pay all fees before participating in convocation ceremonies.

Repossession
If you do not timely and fully comply with all terms of this Agreement and the Student/Parent Laptop Handbook, including the timely return of the property, the District shall be entitled to declare you in default and come to your place of residence, or other location of the property, to take possession of the property.

Term of Agreement
Your right to use and possession of the property terminates not later than the last day of the school year unless earlier terminated by the District or upon withdrawal from the District.

Appropriation
Your failure to timely return the property and the continued use of it for non- school purposes without the District's consent may be considered unlawful appropriation of the District's property.

USE & MAINTENANCE FEE

Students will pay a non-refundable annual use & maintenance fee of $50.

- Students will pay fee on or before taking possession of the laptop.
- In case of theft, vandalism, and other criminal acts, a **police report MUST be filed by the student or parent within 48 hours of the occurrence. Incidents happening off campus must be reported to the police by the parent and a copy of the report be brought to the school.**
- If laptop is stolen and student reports the theft (by the next school day) and police filed a report, then the student will be responsible for $100 for replacement cost instead of the Fair Market Value.
- If laptop is lost, students/parents are responsible to pay for the fair market value to replace the laptop (see Fair Market Value chart).
- **Student will be charged the full price of the laptop if deliberately damaged or vandalized.**
- Seniors must clear all records and pay all fees before participating in convocation.
- Students/Parents are responsible for reasonable cost of repair for damaged laptops that are not covered by manufacturer warranty. (see Figure 2).
- Refunds will not be given after the 4th week of school.
- Fees may be prorated for students who transfer to OHPCC once school has started.
- 25% of repair fees are due before student will be given a loaner or replacement laptop.

LAPTOP PURCHASE AND STUDENT INCENTIVE PROGRAM

- Students will be able to purchase the laptop computer for a fee of $100 upon convocation.
- Students may only purchase 1 laptop computer.
- Students who are in a satellite program that are not issued laptops will be offered laptops on a first come first serve basis at the end of their senior year. The student must notify their lab instructor that they wish to purchase a laptop, and the instructor will notify the Technology Department. These laptops will be available after the school year ends.
- Ohio Hi-Point Career Center has developed an incentive program for students who meet certain academic benchmarks. Students who achieve perfect attendance* during either year at Ohio Hi-Point Career Center or maintain a cumulative 3.5 GPA (academics included from Ohio Hi-Point or home school) will receive their laptop computer free of charge upon convocation. Half-day and satellite students must provide an official transcript that includes documentation of GPA and/or perfect attendance. Documentation must be obtained by the student and given to the technology department.
- Students who serve as a state or national officer for their CTSO will receive their laptop computer for free.
- Laptops will be returned to the original operating system and will have all OHP owned/leased software removed.

*Perfect attendance is defined as zero missed days, zero tardy days.

Figure 1 - Table of Fair Market Value*

Age of Laptop	Value
1 year or less	**$550**
2 years	**$350**
3 years	**$100**

Figure 2 - Table of Estimated Repair Pricing*

Repair	**Loss, Deliberate Damage or Neglect**	**Accidental Damage**
Broken screen (LCD)	$250/400	$100
Keyboard	$119	---
Power adapter + cord	$75	---
Battery	$125	---
Laptop case	$35	---

NOTE: These prices are subject to change based on manufacturer's pricing.

The costs of any other parts needed for repairs will be based on manufacturer's current price list.

FINANCIAL HARDSHIP

Based on Ohio Revised Code, the school district may require payment of a reasonable fee, not to exceed the actual annual maintenance cost for the use of the laptop computer owned or rented by the district.

If this fee creates a financial hardship on the student or parent, please contact campus administration for available options.

Upon proof of financial hardship, the administration may elect to:

- Create a payment plan for the student to pay out fees over time
- Allow reduced payment of the fee
- Allow student to conduct community service equal in value to the fee

USE OF COMPUTERS AND LAPTOPS ON THE NETWORK

Ohio Hi-Point Career Center is committed to the importance of a student being able to continue with his work when his/her laptop is experiencing problems. To assist with this problem the District is providing the following:

Network Student Drives
The students will have a network drive setup from their login. Students should save important items on this network drive, keeping a backup that they can access from anywhere on the network. Students who are located in a satellite program may not have a network drive in which to save their school files.

Loaner Computers
The District has a limited number of loaner laptops for students whose computers are being repaired. The Technology Department also maintains a loaner pool for students to borrow if their laptop was forgotten or left at home. Chargers are not available for loan.

Angel Learning
Many classes have online assignments posted in Angel which can be accessed through any computer with Internet Access. Talk with your student's teachers about the availability of coursework and assignments in Angel. The Angel site may be accessed at http://angel.ohp.k12.oh.us

Internet Safety
The District requires all students to attend Internet Safety training, and complete a short quiz in ANGEL within the first 2 weeks of school. This is a requirement for Internet connectivity funding that we receive. Some sites that have been deemed non-educational are blocked while students are logged on to the District network, but may be unprotected at home. Students are in violation of district policy if they access these sites through proxies. Parents may want to restrict their home access. For more information about online safety go to www.isafe.org.

GENERAL LAPTOP RULES

Student Responsibility
- Do not leave the laptop unattended
- Students are required to bring the laptop to school every day, in the school issued laptop bag.
- Students are required to charge the laptop at home before coming to school. Power outlets may not be available.

Inappropriate Content
- Inappropriate media may not be used as a screensaver or wallpaper.
- Presence of weapons, pornographic materials, inappropriate language, alcohol, drug, gang related symbols, hate group, pictures, or any other content deemed inappropriate by the Technology Coordinator will result in disciplinary actions.
- Passwords on screensavers and power-on screen are not to be used.
- In the event that inappropriate content is found on the laptop, the Technology Department will not attempt to backup the student's data. It is the student's responsibility to ensure the data is backed up.

Deleting Files
- Do not delete any folders or files that you did not create or that you do not recognize. Deletion of certain files will result in a computer failure and will interfere with your ability to complete class work and may affect your grades.

Music, Games, Videos, or Programs/Downloads (while at school)
- Music, videos, and games may not be downloaded or streamed over the Internet. This may be a violation of copyright laws.
- All software loaded on the system must be District approved.

No Loaning or Borrowing Laptops
- Do not loan laptops to other students.
- Do not borrow a laptop from another student.
- Do NOT share passwords or usernames.

Passwords on laptops
- Students are not to activate any passwords on the laptop such as BIOS or Hard Drive passwords without written permission

from the Technology Coordinator.

- Students who have assigned a BIOS or Hard Drive password that cannot be recovered will be responsible for any charges related to removal of the password.

Laptop Warranty

- Warranty claims are at the discretion of the laptop manufacturer and not the District. Students are required to pay for all non-warranty damages.
- Missing keys are not covered under the laptop warranty; students who are found to have more than 5 keys missing may be charged for a new keyboard.
- First repair may be at no cost to the student. The second repair may be at OHPCC's actual cost.

A few examples of warranty and non-warranty issues:

Covered under Manufacturer's Warranty	Not Covered-Student Responsible
Hard drive or DVD failure	Hard drive or DVD drive fails after laptop is dropped
Screen backlight burns out	Screen is visibly broken, cracked shattered
Sound stops working	Liquid spilled on keyboard
Power cord properly cared for no longer charges laptop	Power cord is twisted and kinked severely from not being stored properly and no longer charges laptop
System board failure	Laptop is dropped, physical damage to casing is noted, and the unit will not turn on

Unauthorized Access

- Access to another person's account or computer without their consent or knowledge, or attempting to access the OHP network (other than designated student areas), is considered hacking and is unacceptable behavior subject to disciplinary action.

Transporting Laptops

- **Laptops must be transported in the District issued laptop case at all times**. Students should contact the Technology Department if their bag becomes torn, damaged, or lost.
- To prevent hard drive damage, laptops need to be put in Standby status between classes.
- Do not overstuff the laptop bag. Any damage to the laptop or bag due to overstuffing will be handled as abuse, is not subject to warranty repair, and the student will be held responsible for the full cost of repair charges.

Ohio Hi-Point Career Center

Acceptable Use of Technology for Students

Ohio Hi-Point Career Center ("OHPCC") provides students with an internet-enabled laptop and access to the district's electronic network (hereafter collectively referred to as the "laptop program"). The purpose of the laptop program is to assist in preparing students for success in life and work in the 21st century by providing them with access to a wide range of information and the ability to communicate with people throughout the world. This agreement contains the rules and procedures for students' acceptable use of technology and participation in the laptop program.

The student and parents/guardian **of high-school students** understand and acknowledge that participation in the laptop program is paramount to successful completion and convocation from OHPCC.

The student laptops remain the property of OHPCC throughout the students' attendance. Students are given the opportunity to purchase the laptop upon convocation from OHPCC. Students must sign (along with parent or guardian if the student is a minor) and agree to comply with the rules in this agreement in order to participate in the laptop program.

Participation in the laptop program will enable students to take the laptops home in the evenings and on weekends and holiday periods during the school year. Limited personal use of the laptop by the student assigned to the laptop is acceptable, so long as it conforms to the rules set forth in this agreement.

OHPCC retains the right to place reasonable restrictions on material that is accessed, posted, or saved on the OHPCC electronic network, on the Internet, or on any OHPCC-owned equipment, including but not limited to the student laptops.

A. GENERAL UNACCEPTABLE BEHAVIOR

The following activities are considered unacceptable and will not be tolerated. ***Students should be aware that these rules apply whether they are at school or using the OHPCC-owned equipment outside of school.***

1. Posting information that, if acted upon, could cause damage or danger of disruption.
2. Engaging in personal attacks, including prejudicial or discriminatory attacks.
3. Engaging in threats to any person or entity.
4. Harassment or cyber-bullying, defined as persistently acting in a manner that causes distress or annoys another person. This activity also includes, but is not limited to, knowingly or recklessly posting or communicating false or defamatory information about a person or entity. Please reference District Bullying and Other Forms of Aggressive Behavior Policy and related Guidelines for more information.
5. The use of criminal language or imagery, or language or imagery related to committing a crime, such as threats to the president, instructions on breaking into computer networks, child pornography, drug dealing, purchase of alcohol, gang or violence-related activities, threats to an individual, etc.
6. Electronic communication using school-owned equipment containing profanity or vulgarities, or language that is suggestive or sexual, obscene, insulting, belligerent, defamatory, or racially or culturally insensitive.
7. Saving, displaying, accessing, or sending electronic files on the OHPCC electronic network, student laptops, or any OHPCC-owned equipment which contain language or imagery that is profane or vulgar, suggestive, sexual, obscene, insulting, belligerent, defamatory, or racially or culturally insensitive.
8. Abuse of network resources such as sending chain letters, solicitations**,** or "spamming".
9. Attempting to access or "hack" into prohibited areas of the OHPCC electronic network, including student information systems, business systems, or any other areas of the OHPCC electronic network that the student had not been granted permission to access. Even if just for the purpose of "browsing," this activity is illegal. This includes the laptop computer and it's contents.
10. Knowingly spreading a computer virus.
11. Use of any aspect of the laptop program to acquire, download, run, install, or store illegally acquired files, including, but not limited to, music, video, and video game files.
12. Use of any aspect of the laptop program to acquire, download, run, install, or store software of any type that is used to illegally share files or access prohibited areas of the school's electronic network. This activity is illegal.
13. Accessing or installing any software on any OHPCC-owned equipment or the electronic network that is not owned by OHPCC, without the express written permission of the Technology Coordinator.
14. Attempting to access personal web-based email, chat, or instant messaging during school is prohibited unless instructor-led for classroom instruction.
15. Attempting to repair district technology, or any action that voids manufacturer warranty.

B. E-MAIL ACCESS

1. E-mail accounts may be provided to students for educational purposes. Use of email to communicate with other students during instructional time and without teacher or instructor permission may result is permanent revocation of student-to-student email privileges.
2. Student email is a privilege, not a right; and access may be restricted or revoked due to misuse at the discretion of OHPCC.

C. WORLD WIDE WEB/INTERNET

1. Access to the Internet is filtered through the OHPCC electronic network in accordance with the Children's Internet Protection Act (CIPA).
2. Internet access is considered an integral instructional tool at OHPCC. Access to the Internet is, however, a privilege, not a right; and access may be revoked due to misuse at the discretion of OHPCC or at the request of parent(s)/guardian.
3. OHPCC does not provide for a home internet filter. Students are referred to section (A) above, and reminded that those restrictions apply while using the school-owned laptop outside of school. It is highly recommended that parents monitor their student's home internet activity.

D. PERSONAL SAFETY

1. OHPCC takes the issue of personal safety online very seriously. All students must take and pass an online course in personal online safety and internet ethics at the beginning of the school year in order to have access to the Internet at school.
2. Students are encouraged to promptly disclose to a teacher or other school employee any information received that is inappropriate or makes the student feel uncomfortable.
3. If a student believes they are being cyber-bullied or otherwise electronically harassed, they should report the activity to a teacher or other school employee immediately. Student may be asked to provide printed documentation detailing the bullying activity or threat.

E. SYSTEM SECURITY

1. Students are responsible for their individual accounts and all material saved on their laptop, and should take all reasonable precautions to prevent others from being able to use them. Under no conditions should students provide their password to another person.
2. Students will not make deliberate attempts to disrupt the computer system or destroy data by spreading computer viruses or by any other means. These actions are illegal.
3. Students will not attempt to access Web sites blocked by district policy, including the use of proxy services, software, MiFi, or Web sites.
4. Students will not use sniffing or remote access technology to monitor the network or other user's activity.

F. SOFTWARE AND FILES

1. Students shall not use of any aspect of the laptop program to acquire, download, run, install, or store illegally acquired files, including, but not limited to, music, video, and video game files.
2. A student's account may be limited or terminated if a student intentionally misuses software on any district-owned equipment.
3. A student's network account may be limited or revoked if a student intentionally engages in the unacceptable uses covered in section (A) above.
4. A student's computer may have change prevention software installed if the Technology Department has to re-image the student's assigned computer three (3) times during the school year due to misuse or abuse.

G. PRIVACY

1. Access to the laptop program, including the electronic network is provided as a tool for student educational purposes. OHPCC reserves the right to monitor, inspect, copy, review, and store at any time and without prior notice any and all usage of the laptop and electronic network, and any and all information and communications transmitted or received in connection with such usage. All information and communications shall be and remain the property of OHPCC and no user shall have any expectation of privacy regarding such materials.
2. The Ohio Hi-Point Career Center and/or its instructors may maintain one or more Facebook, Twitter, blog or similar Internet pages for educational and marketing purposes. The identity of those individuals who are accessing, affiliating or commenting on these pages may be visible to third parties not affiliated with the Ohio Hi-Point Career Center. The Ohio Hi-Point Career Center is not responsible for revealing the identity, profile or personal information of the user, including minor students, by third parties. It is the express responsibility of the user, or his/her parent or guardian, to protect the user's identity, profile and personal information.

H. PERSONALIZATION

1. If students are issued a laptop bag, they may personalize the laptop bag as they see fit, within the following guidelines:
    a. No modifications may be made to the laptop bag the affect the functionality and purpose of the laptop bag (no cutting, burning, etc.).
    b. No decoration may be applied to the laptop bag that contains language or imagery that is profane or vulgar, suggestive, sexual, obscene, insulting, belligerent, defamatory, or racially or culturally insensitive.
2. Students are not to decorate or otherwise personalize the student laptop in any way. The placing of stickers or use of permanent marker on the student laptops is forbidden and may result in disciplinary action.

I. VANDALISM

1. Any malicious attempt to harm or destroy data, hardware, or any infrastructure associated with the laptop program, the electronic network, network components connected to the network backbone, student laptop, hardware, or software may result in cancellation of access to the electronic network indefinitely.
2. Certain damages to the student laptop may be considered vandalism, and the student will be charged for repairs or replacement of the laptop at current market value. Please refer to the Student Handbook for more information.

J. PLAGIARISM AND COPYRIGHT INFRINGEMENT

1. Students will not plagiarize works found on the Internet. Plagiarism is defined as taking the ideas or writings of others and presenting them as if they were the students'. The best way to avoid plagiarism is to provide proper citation.
2. Files downloaded from the Internet may be considered copyrighted material and may be illegal to download. Music, movies, games, and other programs that are shared on Peer-to-Peer networks (Kazaa, LimeWire, BearShare, FrostWire, BitTorrent, etc.) should be considered illegal, and should not be downloaded. Having these programs (or other programs with a similar purpose) installed on the student laptops is also a direct violation of this agreement in accordance with section (A)(13).
3. Copyrighted photography and artwork is also considered illegal to download without the express permission of the author.
4. District policies on copyright will govern the use of material accessed and used through the OHPCC electronic network.

K. DUE PROCESS & DISCIPLINE

1. The district will cooperate fully with local, state, or federal officials in any investigation related to any illegal activities conducted through the OHP electronic network or in association with the laptop program.
2. Disciplinary actions will be tailored to meet specific concerns related to the violation and to assist the student in gaining the self-discipline necessary to behave appropriately on an electronic network. Violations of the District Acceptable Use of Technology for Students Policy may result in a loss of access as well as other disciplinary or legal action.
3. Students' violation of this agreement shall be subject to the consequences as indicated within this agreement as well as other appropriate discipline, which includes but is not limited to:
    a. Use of district network only under direct supervision
    b. Loss of "take home" privileges for laptop
    c. Suspension of network privileges
    d. Revocation of network privileges
    e. Suspension of computer privileges
    f. Suspension from school
    g. Expulsion from school and/or
    h. Legal action and prosecution by the authorities

L. LIMITATION OF LIABILITY

1. The district makes no guarantee that the functions or the services provided by or through the district network will be error-free or without defect. The district will not be responsible for any damage suffered, including but not limited to, loss of data or interruptions of service.
2. The district is not responsible for the accuracy or quality of the information obtained through or stored on the network. The district will not be responsible for financial obligations arising through the unauthorized use of the network.
3. OHPCC is not responsible for the actions of students who violate this agreement beyond the clarification of standards outlined in this agreement.

2013/2014 STUDENT AGREEMENT

Every student, regardless of age, must read and sign below:

I will read, understand and agree to abide by the terms of the Acceptable Use of Technology for Students Policy of the Ohio Hi-Point Career Center School District. Should I commit any violation or in any way misuse my access to the School District's computer network and the Internet, I understand and agree that my access privilege may be revoked and School disciplinary action may be taken against me.

_____ _____

Student name (PRINT CLEARLY) Birth date

_____ _____

Student signature Date

User (place an "X" in the correct blank): I am 18 or older _____ I am under 18 _____

If I am signing this Agreement when I am under 18, I understand that when I turn 18 this Agreement will continue to be in full force and effect, and I will continue to abide by the Acceptable Use of Technology for Students Policy.

PARENT OR GUARDIAN AGREEMENT

This MUST be read and signed by a parent or guardian regardless of student age.

As the parent or legal guardian of the above student, I have read, understand and agree that my child or ward shall comply with the terms of the Ohio Hi-Point Career Center School District's Acceptable Use of Technology for Students Policy for the student's access to the School District's computer network and the Internet. I understand that access is being provided to the students for educational purposes only. However, I also understand that it is impossible for the School to restrict access to all offensive and controversial materials and understand my child's or ward's responsibility for abiding by the Policy. I am therefore signing this Agreement and agree to indemnify and hold harmless the School, the School District and the Data Acquisition Site that provides the opportunity to the School District for computer network and Internet access against all claims, damages, losses and costs, of whatever kind, that may result from my child's or ward's use of his or her access to such networks or his or her violation of the Acceptable Use of Technology for Students Policy. Further, I accept full responsibility for supervision of my child's or ward's use of his or her access account if and when such access is not in the School setting. I hereby give permission for my child or ward to use the building-approved account to access the School District's computer network and the Internet

_____

Parent or Guardian name(s) (PRINT CLEARLY)

_____

Parent or Guardian signature(s) Date

****

Legal References: Children's Internet Protection Act of 2000 (H.R. 4577, P.L. 106-554), Communications Act of 1934, as amended (47 U.S.C. 254[h],[l]), Elementary and Secondary Education Act of 1965, as amended (20 U.S.C. 6801 et seq., Part F)

RESPONSIBLE USE POLICY

(rev. 6.28.11)

This policy applies to all digital devices students use at school, including but not limited to, smartphones, mp3 players, slate devices, and desktop and/or laptop computers.

Technology Use Guidelines

The school's technology infrastructure / network provides opportunities to enhance student learning with a variety of technology tools and services. Its purpose is in support of education and research consistent with the academic objectives of the school. A letter from the principals relating to ABC Prep's use of the Internet, mobile devices, and social media is included as a part of this policy by reference.

The use of ABC Prep's computers, network, and Internet access is a privilege. The following guidelines help individual technology users understand ABC Prep's expectations for its responsible use.

Being a Good Digital Citizen

The way we use technology tools to communicate information has a powerful effect on our learning community. Responsible use will lead to better, more effective learning while irresponsible use will diminish it.

Communication

- Derogatory, obscene, or otherwise inappropriate e-mail exchanges, instant messages, digital images, or web postings may be considered cyber-bullying and are prohibited.
- Cyber-bullying, defined as online activity which subjects a student to insults, taunts, or challenges, is prohibited and falls under the bullying policy outlined in the Student Behavior Expectations section of the Student Handbook.
- Be aware that anything posted on the internet is permanent.

Digital Rights and Responsibilities

- Forgery or attempted forgery of email messages or other electronic documents is prohibited.
- Reading, deleting, copying, or modifying any electronic documents of other users is prohibited.
- All research used for academic work must be properly cited, including information from the Internet.
- Adhere to all copyright laws with regard to software or Internet-based information. Copyright information is available in the library and the Technology Office.

Privacy and Security

- In order to respect the privacy of community members, technology users may not use another person's ID or password.
- Accessing other people's accounts in any form is not allowed.

- Use networks responsibly, and only use those networks which you have legal access to.
- Avoid posting personal information about yourself or others including listing phone numbers, addresses, locations, etc.

Ethical use of Technology

Communication Tools

- Each teacher has specific policies regarding the use of technology in their classroom. These policies should be followed at all times.
- The primary purpose of ABC Prep's GoogleApps domain is for school-related communication that serves the teaching and learning objectives of the school.
- Students may not send an email (or "spam") to a class, an entire grade level, or any group within the school without prior approval.
- Students may use age appropriate collaboration tools to communicate responsibly with peers.

Software

To maintain the functioning of the school's network and to minimize unnecessary repairs, technology users may not install software to school-owned computers without appropriate authorization.

Internet

The Internet should be used for research in support of educational projects consistent with the academic objectives of the school.

The following activities show responsible use of the Internet:

- Researching (properly citing research and/or resources found on the Internet to avoid plagiarism)
- Communicating
- Web-based learning applications
- Responsible social networking in support of educational goals
- Educational learning networks

Unacceptable Use

- Accessing, storing, sharing, or displaying information that is inconsistent with ABC Prep's mission including, but not limited to, pornographic materials, vulgarity, gambling, militant/extremist material, hate speech, etc.
- Any attempt to harm, alter, or destroy school technology equipment or materials, the data of another user, or provided network services via the school's Internet access.
- Accessing another user's account and/or misrepresenting another's identity.
- The use of ABC Prep's network, Internet access, and/or devices (school-owned or personal) during academic times for non-academic purposes, including but not limited to gaming, chatting, and/or social networking.

Monitored Use

- Do not assume that any electronic files, materials, or communications on your computer or the school's systems are confidential. ABC Prep reserves the right to inspect all devices and/or electronic files on campus and will take appropriate action where necessary as outlined in The Student Handbook.
- The school filters inappropriate Internet access on campus by category (mature content, alcohol and drugs, pornography, etc.) and by individual website (formspring.me, chatroulette.com, etc.), and we review websites regularly. When deciding whether or not to block a site, we consider its value within the context of the maturity and developmental level of our students.

Responsible Use Policy

BB&N provides a variety of networked digital tools including computers, servers, phones, internet access, software, websites, printers, and other resources to support the school's educational mission. Our policies are intended to promote the most effective, safe, and academically oriented uses of these tools. A high standard of personal responsibility is required in order to maintain student privileges to use our technology resources. "Responsible use" means being ethical, respectful, legal, academically honest, and supportive of the educational process. We encourage students to use our resources for intellectual growth, both school-related and personal, and expect students to avoid behavior which interferes with anyone's learning process.

BB&N takes precautions to restrict access to objectionable material online, but it is not possible to have full control over access to resources and materials on the internet. Students' and employees' privacy is respected, but the school reserves the right to examine any relevant files if there is reasonable concern that our policies have been violated, or in the event of problems with a technology system. All user accounts, including email, are accessible to BB&N technology system administrators, and when deemed necessary, will be reviewed by officers of the school. BB&N reserves the right to read, monitor, block, and/or delete any & all electronic files and data which are stored on, or pass across, our network. BB&N cannot guarantee that network services will be without error. The school will not be responsible for any lost data or interrupted service caused by malfunction, negligence, or omission. BB&N is not responsible for the accuracy or quality of information obtained through the network, nor will the school be responsible for financial obligations arising from unauthorized use of the network.

The following guidelines are intended to clarify expectations for conduct, but should not be construed as all-inclusive, as we cannot outline every possibility. BB&N reserves the right to adjust these rules and guidelines as necessary. Violating any portion of this agreement may result in disciplinary review, including possible suspension or expulsion, and/or legal action. BB&N will cooperate fully with law enforcement officials in any investigation related to any potentially illegal activities conducted through our network. We also require and expect students to use technology in accordance with general expectations for appropriate student behavior as outlined in various other school policies, such as our Community Standards, Harassment, and Anti-Bullying policies. The school also reserves the right to apply disciplinary consequences for computer-related activities conducted off-campus if such activity adversely affects the safety or well-being of any members of our community, or constitutes behavior embarrassing to the school. Any use of a website, message board, cell phone, camera, blog, or other social networking tools to misrepresent oneself, to disparage the school or any person, or to depict or advocate illegal or inappropriate behavior is a violation of BB&N's expectations for conduct.

1. I understand that I represent both myself and BB&N whenever and wherever I use online communications (both at school and off-campus) and whether it is on school-owned equipment or personally-owned equipment. This includes, but is not limited to: email, chat, instant-messaging, texting, gaming, photo-sharing, and social networking. In all of my online communication I will be respectful and polite to all members of the BB&N community.

2. I understand the school reserves the right to inspect all files and transmissions on the BB&N network, and also reserves the right to inspect student-owned equipment (e.g. computers, iPads, cell phones) if there are concerns that school policies may have been violated through the use of that equipment.
3. If I am uncertain whether a specific computer activity is permitted or appropriate for BB&N, I will ask a teacher, parent, or the technology department before engaging in that activity.
4. I understand that the school network includes filters and security to ensure safe and efficient access and I will not attempt to circumvent or disable these.
5. I understand it is my responsibility to back up my school computer files, keep my school accounts secure, and to seek out help (when needed) to be able to successfully use required technology resources.
6. I will not share my network passwords with anyone, or use anyone else's network passwords. If I become aware of another individual's password, I will inform that person or a member of the technology staff.
7. I will not share or post online personally identifying information about any members of the BB&N community without permission (addresses, phone numbers, email addresses, photos, videos, etc.)
8. I will be ethical and respect the privacy of others throughout the BB&N network and internet, and will not share or access others' folders, files, or data without authorization.
9. I understand that BB&N has the right to look at any data, email, logs, or files that exist on the network without the prior consent of system users. In addition, BB&N reserves the right to view or remove any files on the network without prior notice to users.
10. I understand that it is possible for information posted on "private" websites to be searched for, read, and re-posted by malicious users, and it is best to assume that nothing on the internet is truly private.
11. I understand the permanence and searchability of information I post on the internet-- that this information can easily be found by others (even those I might not intend to have access), and that the information is often stored or cached by other servers, and cannot truly be "removed" from the internet at a later time.
12. I will properly cite any intellectual property resources that I use in assignments, projects, and papers, and I will not plagiarize from any sources. (Plagiarism is taking someone else's writing, images, or idea and presenting it as your own.)

Acceptable Use Policy

Science Leadership Academy values of technology and encourages its use in creative ways to support student learning in a safe and secure learning environment. This policy is a guide to ensuring the appropriate use as well as safety for all community members. While these technologies provide powerful learning opportunities, they must be used responsibly.

These rules apply to any electronic device including laptops, mobile phones, MP3 players, gaming devices, digital cameras, any and all devices that are connected to the School District of Philadelphia network. Learning always takes priority while using SLA's wireless and hardwired internet connections.

Tresspassing

- Do not touch another person's laptop/device unless invited by the owner
- Do not play with, use, or change another person's user account
- Do not access another person's files or resources
- Only access areas of the network you have been given permission to access

No Fooling Around

- Do not load any game, video or music file on your machine that is not paid for or have the rights to use by you.
- Do not play games at school, unless sanctioned and agreed to by staff and parents
- Do not access inappropriate websites (obscene, violent etc) on your laptop
- Do not chat online or play music/videos unless given permission by your teacher
- Leave mobile phones turned off or in silent mode in your bags/pockets unless their use is sanctioned by a teacher for a learning activity or listening to music during independent work
- Do not post or send any message/picture/sound/video that is obscene, rude, harassing or insulting to anyone
- Do not attack, threaten or intimidate another student via technology (or otherwise)
- Do not take pictures or post pictures of others without asking their permission

No Hogging

- Do not take up bandwidth by downloading movies, music, pictures, or by playing online games not directly connected to your learning
- Do not store music, movies, pictures or files on the school network not connected to your learning - all personal files must be saved on an external hard drive

No Stealing

- Do not download any illegal materials (e.g. cracked software, pirated music or movies, or any copyrighted materials) or intellectual property that was not purchased by you or that you do not have the rights to use
- Peer to peer file sharing is strictly prohibited and monitored by the School District of Philadelphia - these software programs can be detected by the District and they will shut off your access to the SDP Network
- Do not plagiarize i.e. present anybody else's work as your own - for more information see SLA's academic integrity policy
- No spamming, hacking, hawking, or trolling
- Do not forward or send any content not directly associated with your learning (e.g. advertisements, games, pictures)
- Do not deliberately or negligently spread viruses, malware, or spyware
- Do not attempt to access any areas of the school network, or other peoples' devices you do not have permission to visit
- Do not run a business or seek to make profit using the school network

Guidelines

- Science Leadership Academy and The School District of Philadelphia will monitor user data and internet access and check the contents of any electronic device brought onto the school's premises or on any official school event
- Educational use of the network and computer resources takes precedence over non- educational use including games not related to classwork
- This statement covers (but is not limited to) the use of electronic devices owned by the school and by students that are brought onto school's premises, or on excursions, camps or other official school functions - including computers, laptops, digital video and music players, cameras, other recording devices, mobile phones and organizers
- Science Leadership Academy reserves the right to ensure all student laptops have sufficient space to support learning activities. This may include the school need to deleting non-essential games, music and video files.

Laptop Audits

- Audits of student laptops can be done by any staff member at anytime.

Sanctions

Sanctions for violations stated above may include the following measures:

- Confiscation of the device for a defined period
- Withdrawal of privileges including on-line access for breaches of on-line policy
- Withdrawal of the right to bring or use electronic devices to Science Leadership Academy
- Blockage from the network of any and all devices downloading illegal files such as music, video and photographs
- Community work for the Science Leadership Academy outside school hours

- Payment for cost of repairs

Serious Breaches of Rules

- All incidences will be handled on a student by student basis
- Suspension or expulsion
- Law enforcement agencies may be involved
- Simple finder will be installed on your computer this which limits the applications on your laptop to strictly educational use
- **The laptops are the School District of Philadelphia's property. We strongly encourage that the insurance is paid for each year the laptop is in the hands of a student. That way if there is any major damage families are only liable for the $100 deductible. Any damage caused by the user starts with the $100 deductible.**

Responsibility

- Keep the computer in a safe clean place
- Notify SLA if the user changes residence at any point during the time they possess the laptop
- Provide SLA and Officer Byrd with a police report in the event of fire or theft of the laptop
- Keep the laptop in a PADDED backpack

Administration of Computers

All users will be granted with the power to change the settings within the computer. That way updates to software can be made and peripherals can be hooked up to the laptop with ease. The user may not change password settings or computer name settings, these are uniform to the school and are necessary for the maintenance and upkeep of the laptop.

File Storage

No personal files should be kept on the laptop, these must be saved to an external drive - this includes all music files and photographs, SLA is not responsible for any lost files school or personal

A two gigabyte storage space will be provided for students to keep all school related files safe - ALL FILES MUST BE SAVED TO THE DROPBOX ACCOUNT - further instruction on doing so will be given in the technology course during the first week of school

Students are responsible for maintaining current backups of all their own schoolwork either online through Dropbox or their own backup solution. You will be expected to turn in your work on time even in the event that your laptop fails - the Technology Team team cannot recover your files

Network - Connecting to the Internet

The entire school is covered by a high-speed wireless internet network. All students will be able to access the internet, as long as they follow this policy. With this connection comes a degree of risk, this policy is made to help users avoid these risks, keep our community safe and abide by internet laws.

Email

Users will have access to an email account the four years they are at SLA. You may use this to communicate with parents, teachers, friends, experts and fellow students around the globe. An email address with the suffix @scienceleadership.org will be provided to all students. This address is to be used for all school-related business. Your private account should be used for all other communications. Users will have access to their other email accounts during "off" times during school, like lunch and free periods.

Email/Chatting Etiquette

Communicating online is is very much like communicating with people in person. You must be respectful of others at all times. Remember that all email & M.O.O.D.L.E. messages can be read by the SLA Technology Team and the administration. Don't write anything you would not want to share with teachers and parents.

While many members of SLA, including staff members, use instant messaging and blogging software to communicate, part of the learning experience at SLA is to responsibly use these types of communication methods as part of your school day. Students need to be aware that chatting during class time when off topic is a distraction. Students asked to refrain from using or quit using chatting during class time must do so immediately.

Publishing or Uploading to the Web

In some cases your classwork will be published or students will be asked to hand in assignments that are published. Having work published means the world can see what you have uploaded. This is a great opportunity for students as well as people not directly involved with SLA; it provides you and other students a chance to share your work and have it viewed. People curious about SLA will be visiting our web portal to see what goes on daily.

Support

The SLA Technology Office is located in room 306, and staffed by our Systems Administrator Chris Alfano. In addition SLA's Technology Coordinator is Marcie T. Hull, who can be found in room 301.

Technology Office Hours for student repairs

Everyday after school the last half hour of first lunch and the first half hour of last lunch

Insurance Policy

SLA's Technology Team team will determine what type of repair a laptop is eligible for and be responsible for carrying out and administering the repair.

School District Insurance - in short

We strongly encourage the purchase of insurance available though the School District of Philadelphia for student laptop computers, the cost is $75.00.

- Damage caused by the user is not covered by insurance.
- Physical damage to the casing caused to chargers is not covered by insurance.
- Batteries are not covered by insurance
- All damage is subject to a $100.00 deductible.

F.A.Q's

What do I owe up front? The money for the insurance is due at the beginning of each school year. The deductible ($100.00) must be paid when damage occurs and the user brings the laptop in for a repair that is not covered by insurance. Users will not get the laptop back until the repair bill is paid in full. Payment plans can be set up for your convenience.

What not covered by the insurance? Batteries that can not keep a charge are not covered and chargers that have physical damage to the casing. Who pays for parts that are not covered by the insurance? In the event that a battery goes bad or the charger suffers physical damage by the user then the user or their guardian must pay in full for the parts that are broken or missing.

Who makes the decisions about what is covered under the insurance? The coverage under this policy is dictated to us by Apple. For example, Apple considers batteries and chargers to be replaceable parts, and they are therefore not covered by insurance. SLA does not have the budget to replace these items. Therefore, should there be a problem with a battery, or a problem with a charger due to physical damage, it is the student’s responsibility to pay for a replacement.