District Learning Technology Plan

RSU/MSAD 75

Date Approved by School Board: 23 June 2016

Plan Authors: Micah Brown (Technology Support Leader), Dan Chuhta (Assistant Superintendent), Jodi Crawford (Library Media Specialist), Kaleigh Frye (Teacher), Dana Greenleaf (Teacher), Kate Greeley (Technology Integrator), Lianna Messier (Teacher), Ryan Palmer (Technology Integrator), Nick Riggie (Technology Director), Emily Vail (Teacher)

Schools Impacted by the Plan:

Bowdoin Central School
Bowdoinham Community School
Harpswell Community School
Williams-Cone Elementary School
Woodside Elementary School
Mt. Ararat Middle School
Mt. Ararat High School

Section I: Introduction:

This Learning Technology Plan was created in the spring of 2016 based on new guidelines released by the Maine Department of Education in the spring of 2016. A committee of teachers and administrators from across the district was formed with the expressed purpose of defining the course of our learning technology work over the next three years. To aid the committee in its work, all students in grades 3-12 and staff district-wide participated in a comprehensive technology survey (Clarity) which provided invaluable information. To be clear, as both preview and summary, this three-year plan purposefully sets us on a course that will increase and improve access to technology across our district (most notably, in our elementary schools) and also squarely identifies the continued need for us to effectively facilitate and provide appropriate professional development for our staff. With generous annual budget allocations, strategic use of E-Rate funds, and no small amount of dedicated time and energy on the part of our staff, it is obvious that we invest a great deal in technology for teaching and learning.

This plan plainly identifies the necessary work that now lies ahead which will allow us to build upon our existing strengths and grow our practices to fully leverage these technology tools.

Section II: Shared Vision for Learning:

We are working to design a learning system that is student-centered in which:

- All students will be better prepared for college, career, and civic readiness
- All students will connect to, engage in, and develop a passion for learning
- All students can learn and show what they know in a variety of ways and paces
- Students, teachers, and families have a clear understanding of where a student's learning is, and where it is headed.

Technology plays an important role in helping us to realize this vision. We envision all members of our school community using technology to accomplish both common and complex tasks to support student learning. Technology is often the vehicle for making multiple pathways accessible to students to access information, collaborate, or create something new when demonstrating learning. In every aspect of our vision, technology's vital role is apparent.

Section III: Shared Leadership:

Our school district has a consistent pattern that results in the "buy-in" of stakeholders when new initiatives come along. This pattern often starts with Superintendent or Assistant Superintendent communicating with other school administrators within the district about a new initiative or proposal based on our data, current research, Board Goals, and/or staff feedback. Next, school-based teams, such as department heads or instructional leadership teams, become involved in the process. School-based leaders or principals share this information with their school staff, community and students, as appropriate. These stakeholders are encouraged to provide input about the initiative or proposal to increase the district's ability to make informed decisions. This input may be in the form of completing a survey, participating in a forum, or joining a committee.

The development proceeds with a group, representative of the district, piloting possible programs or pedagogies. After the pilot, there is discussion about the successes and the challenges of the pilot resulting in a decision. The School Board then votes on the decision. The process continues with implementation of the initiative with support from administration and qualified personnel providing staff development as needed.

One example of how this has happened with technology in our district is our current transition to the use of Empower to report student progress. Through the work of the Proficiency-based Learning Steering Committee, comprised of many stakeholders such as administrators, teachers, and parents, a decision was made to research and pilot a new reporting system that would put our vision into practice. We have now come to the other side of that pilot and continue the process of growing this vision, which includes the use of Empower.

At the same time, some initiatives are "grassroots" in nature. At the elementary level, we had a need to find a way for students to save their work and be able to access it no matter what the device. Through teachers piloting in their classrooms, then sharing with colleagues and their administrator, this idea of cloud-based storage and collaboration has grown into a full-fledged district initiative - the use of Google Apps for Education.

Staffing is an important piece to realizing the vision of learning and technology's role in that vision. Our district employs a knowledgeable technology department that consists of a director, a data manager, and three technology-support leaders. The district also employs two technology integrators who work under the direction of the Assistant Superintendent. Also, in 2013, each of our schools created a Learning Commons space with staff cross-trained to help with both "library" and technology funtions. Learning Commons staff provide school staff and students assistance with their technology and information needs. These professionals have significant involvement in decision-making, planning, and execution of technology use within the district.

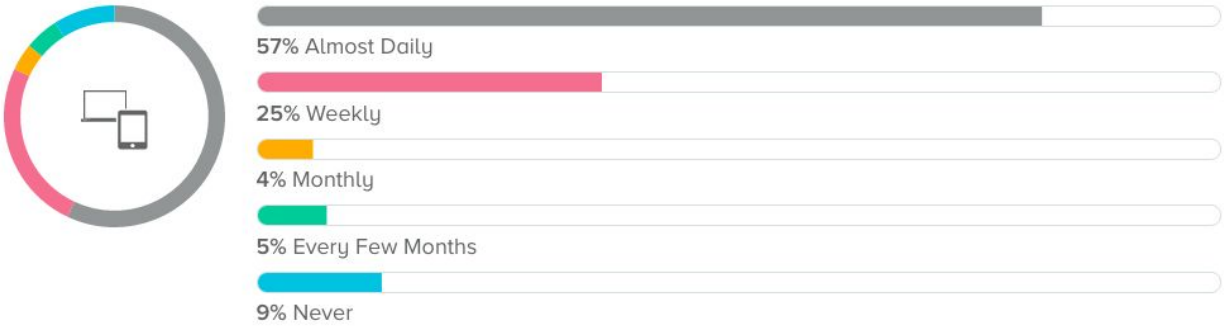
Section IV: District Learning Technology Data and Action Plan:

Section IV, Part A: Student Learning & Teacher Practice

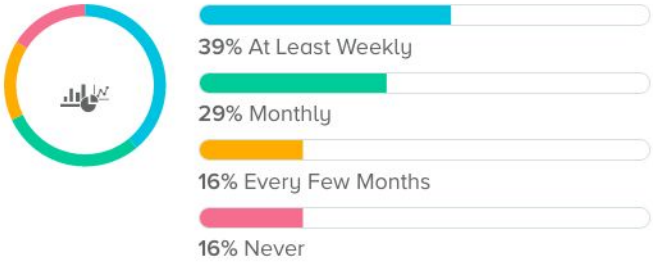
Results of the Data

Student-reported frequency of computer use in the classroom

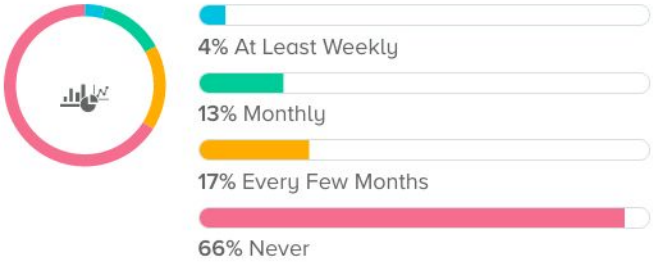
Teacher-reported frequency of student computer use in the classroom



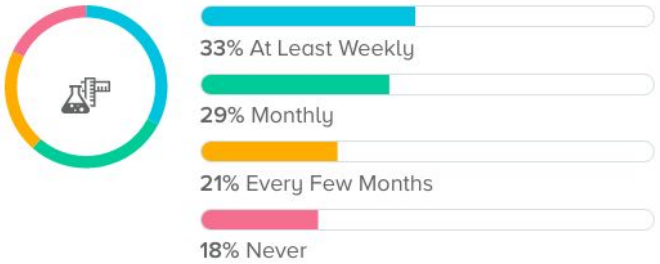
Students are asked to collect and analyze data



Teachers ask students to collect and analyze data



Students are asked to conduct experiments or perform measurements



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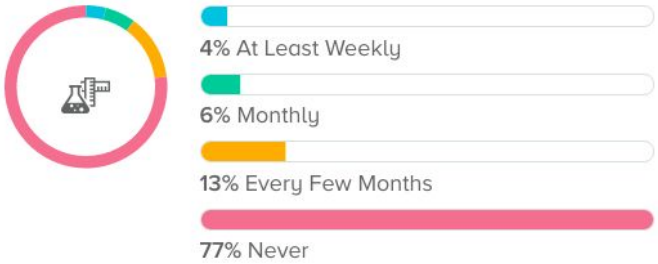
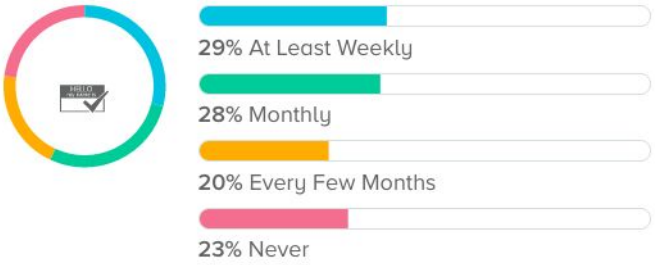


Students are asked to identify and solve authentic problems



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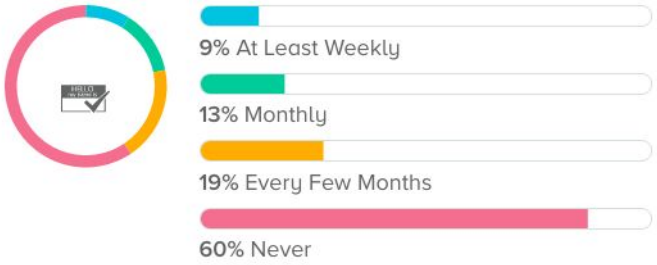
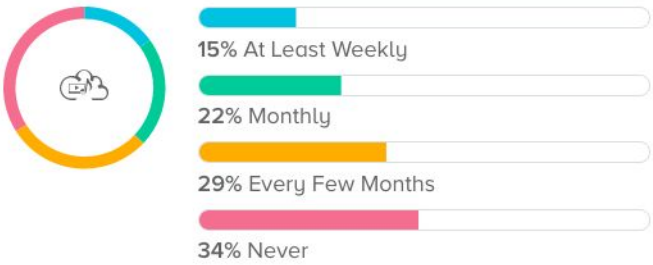


Students are asked to create and upload art, music, movies, or webcasts



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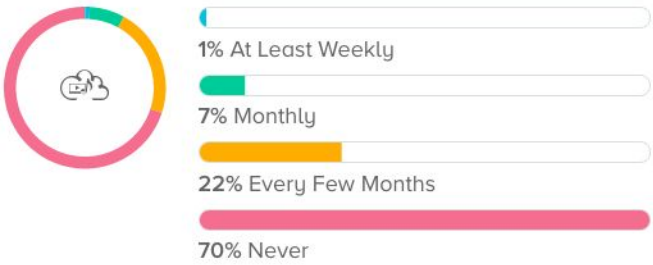
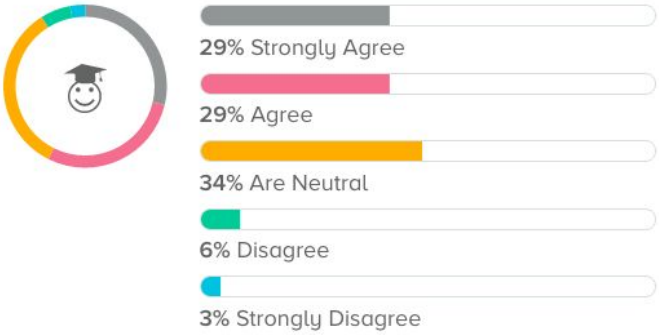


Students think learning is more engaging when using technology



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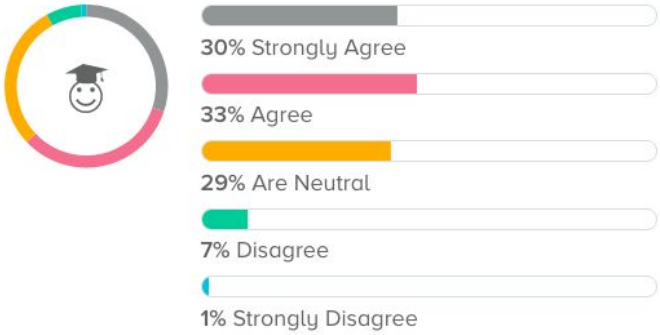

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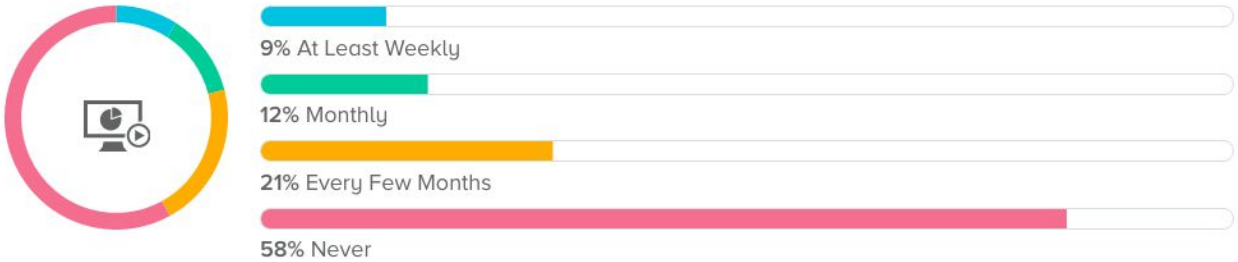

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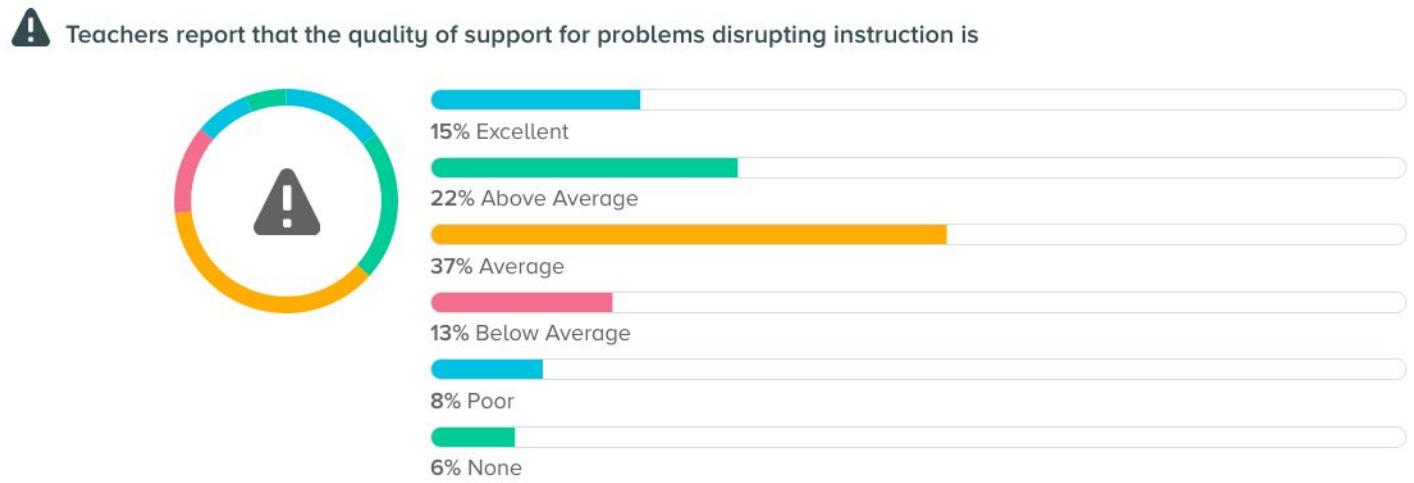
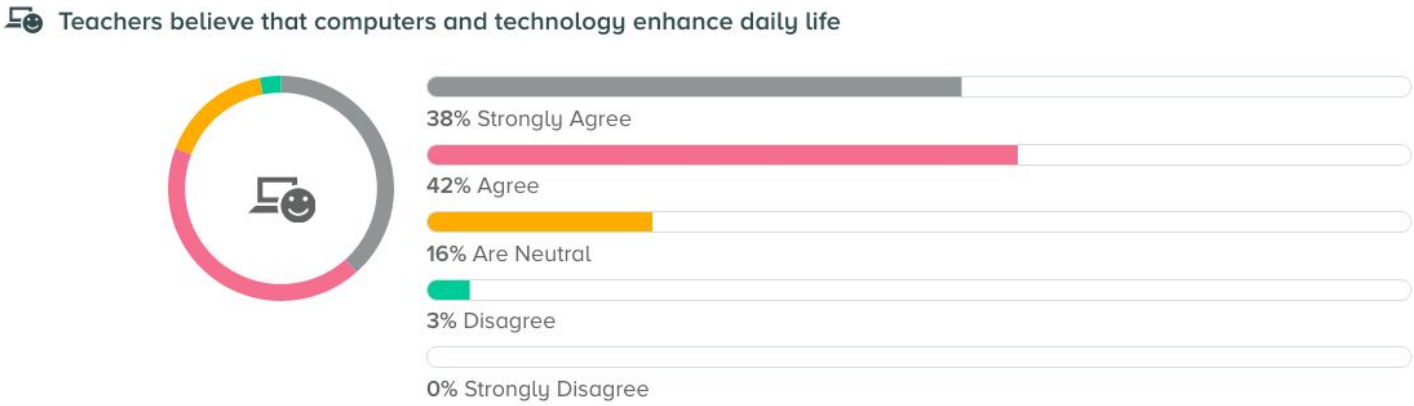




Section IV, Part A: Student Learning & Teacher Practice Implications

Looking at the data provided by the Clarity survey, we can see that there is a disparity between teacher and student perceptions of what's happening in the classroom. At times, this disparity is enormously different, for instance in the question regarding the collection of data. The question about 'why the disparity?' can partially be explained by the fact that many students interact with more than one teacher in any given school day. In other words, the students are responding based on their experience with many teachers' practices, whereas the teachers are reflecting primarily on their own practice.

After a decade and a half of participation in MLTI (Maine Learning Technology Initiative), the survey results show that many teachers are using technology, though the type of use is somewhat limited. For example, there is a lack of use in the areas of problem solving, data analysis and creativity.

For our vision to succeed, teachers and other supporting staff will need to have the skills to make use of the technology beyond being just a learning tool, but also how to access its full potential. We must find a new way to engage them in all content areas and make the technology, while not the focus of the learning, the tool through which the learning can occur. With that goal in mind,

it is important to offer teachers and supporting staff opportunities to gain the knowledge necessary to push past the old model of web, research, and word processing into the new era of creation, expansion, and learning.

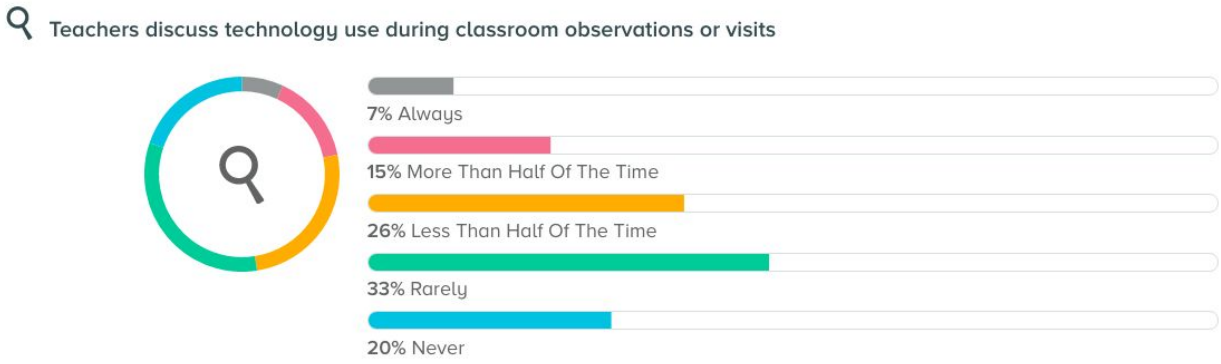
While the district's main focus is on proficiency-based learning and the new teacher and principal evaluation system, it will not be hard to merge additional training in the use of technology for learning into these sizable initiatives. All of these initiatives are interconnected and require technology proficiency. As teachers take part in professional development, technology use will be integrated and modeled into those learning experiences.

Section IV, Part A: Student Learning & Teacher Practice Actions

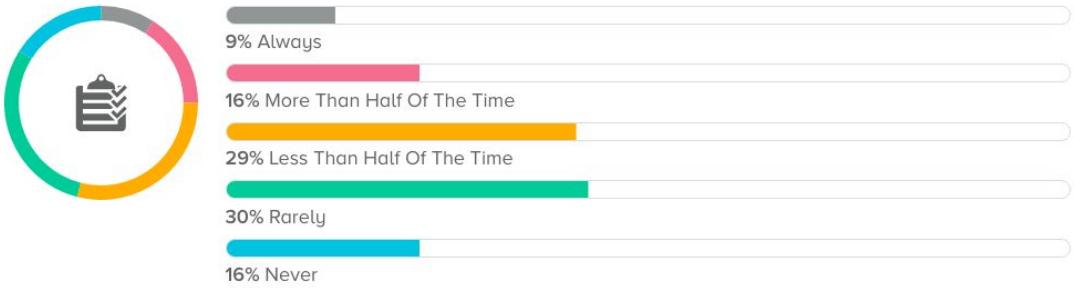
Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Professional Development (See table in Section IV, Part C.)	Technology Support, Technology Integrators, Leading Teachers, MLTI Teacher Leaders	Ongoing

Section IV, Part B: Leadership for Learning Through Technology

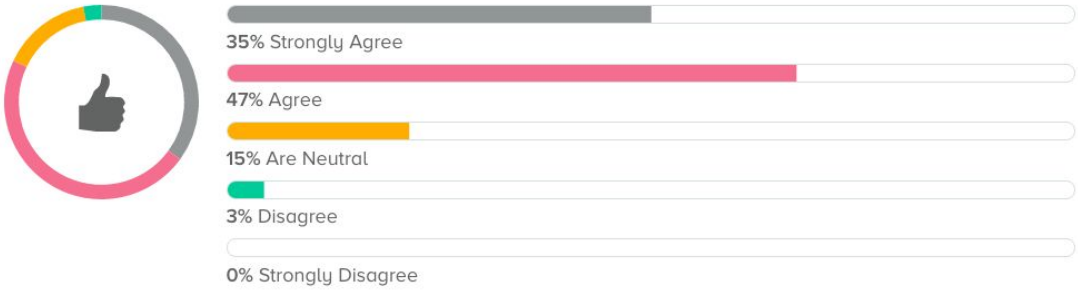
Results of the Data



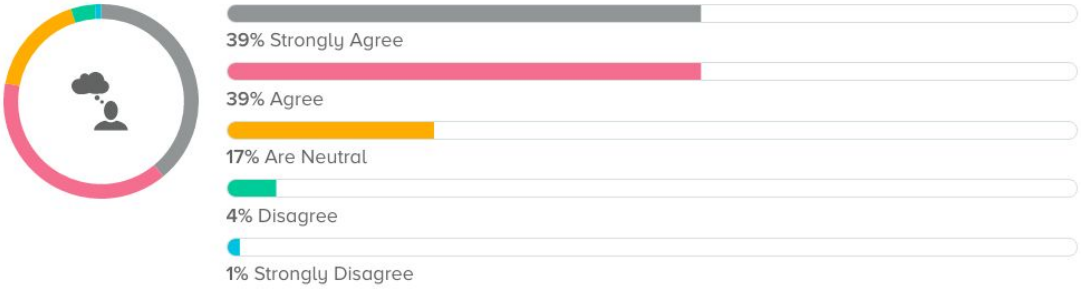
Teachers discuss technology use during evaluations



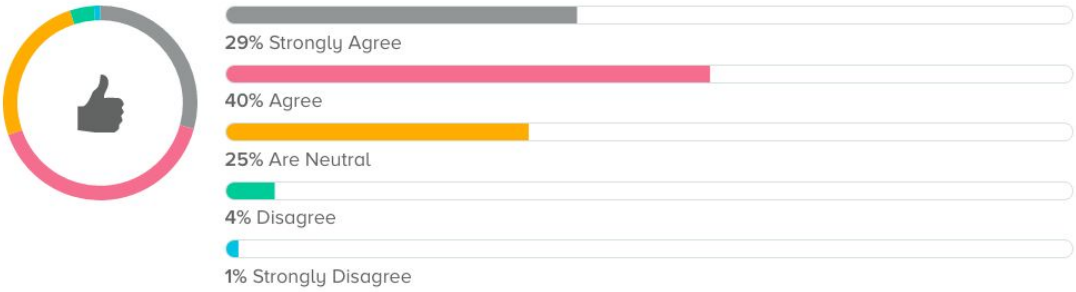
Teachers believe the school encourages technology use for teaching and learning

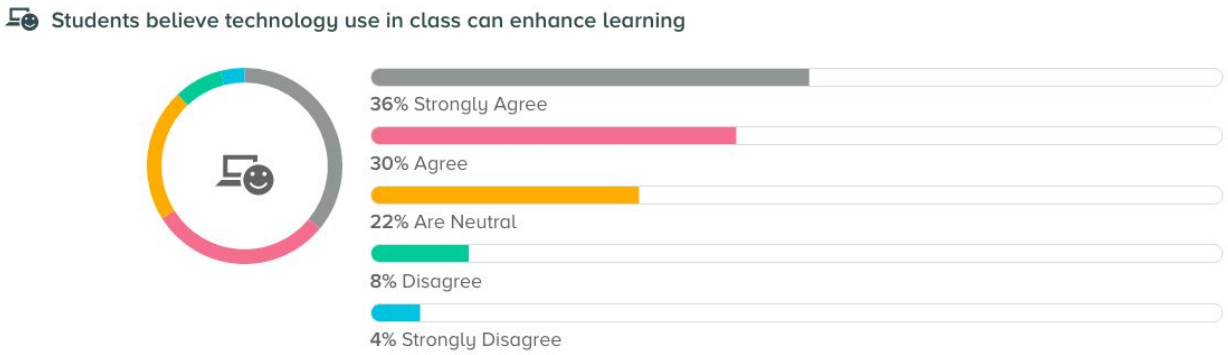


Teachers want to learn more about effective technology use for teaching and learning



Students believe the school encourages technology use for teaching and learning





Section IV, Part B: Leadership for Learning Through Technology Implications

Most teachers (82%) and students (69%) report that their school encourages the use of technology for teaching and learning. Also, most teachers (78%) report wanting to learn more. The important piece of information here lies within the statement from teachers that technology seems to rarely be discussed during classroom visits and evaluations (22%, and 25% respectively). Further investigation needs to occur on these data points, including discussions with those who do the observations and evaluations.

Technology is a powerful tool in the classroom, and if a teacher is underutilizing it, then supervisors need to address this with the teacher in the teacher's growth plan. However, both may need help with what potential use looks like. While there are a few elements within our teacher observation data system (iObservation) that directly relate to technology, most elements can be enhanced with the use of technology.

In order for teachers and administrators to know what effective use of technology looks like, they need to be exposed to it. Professional development opportunities related to technology, which include sessions and demonstrations by teachers, would allow administrators to see how educators inside and outside of our district are effectively utilizing technology.

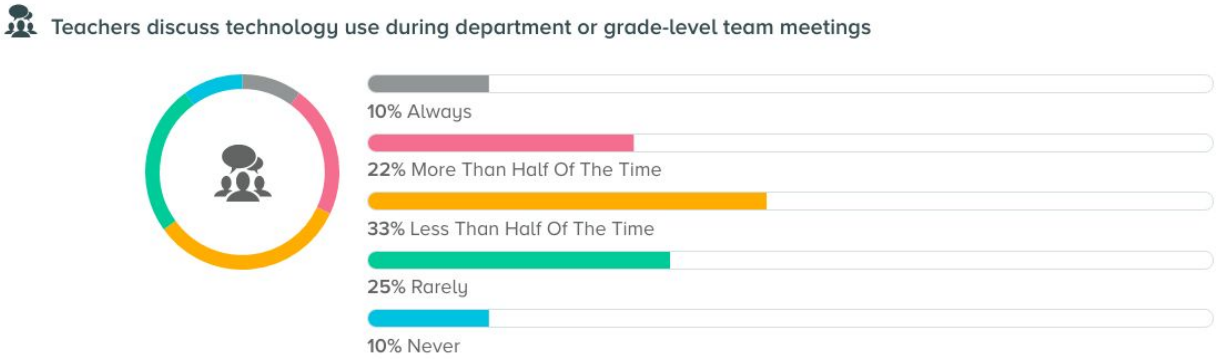
Section IV, Part B: Leadership for Learning Through Technology Actions

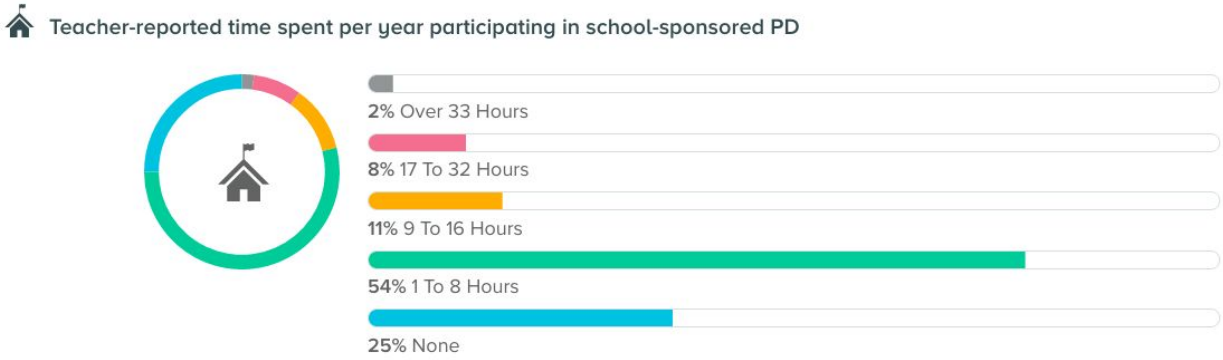
Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Include technology integration in the teacher growth plan when appropriate.	Administrator, Evaluator	ongoing
Create collection of technology strategies that assist with each of 60 elements found in iObservation.	Technology Integrators	January 2017

Collect examples of technology use that assists with each of the 60 elements.	Technology Integrators Teachers	June 2017
Provide access and instruction on the collection of technology strategies.	Technology Integrators Principals Professional Coaches Teachers	Fall 2017 and ongoing

Section IV, Part C: Professional Learning

Results of the Data





Part C: Professional Learning Implications

The data shows that involvement in technology-related professional development, both within the district and externally, is low (80% or more report less than 8 hours.) Few teachers are independently taking advantage of formal and informal professional development activities inside or outside of the district. Investment in technology-related professional development, whether internal or external, needs to occur more frequently. Our on-site experts and administrators need to stay current on strategies and tools for effective technology use in the classroom.

Part C: Professional Learning Actions

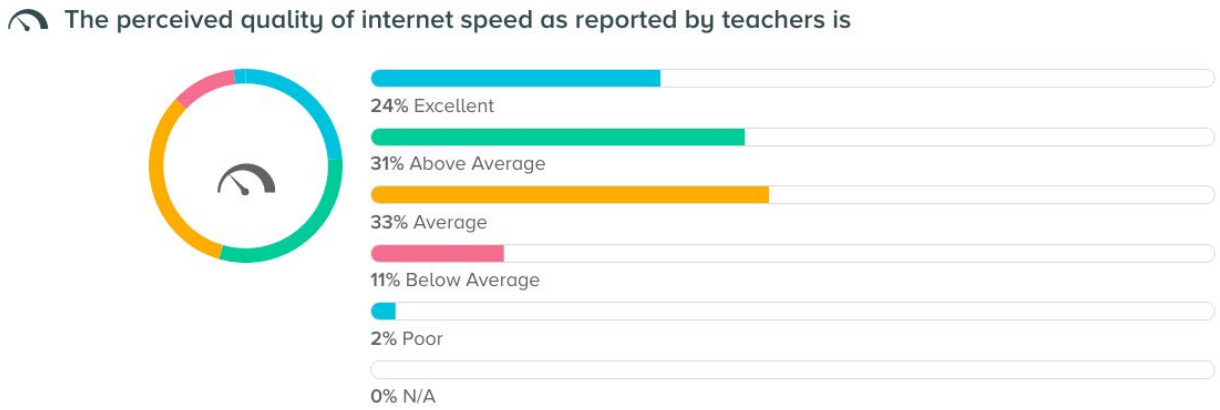
Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Monthly PD offerings based on needs in the Clarity Survey and teacher growth plan data	Technology Integrators / MLTI Lead Teacher	Ongoing
Budgetary planning of involvement with internal and external PD opportunities	Assistant Superintendent	Ongoing

Plan and implement a Summer Technology Institute	Technology Integrators, Lead Teachers, Administrators	Summer 2017 then Ongoing
Budgetary planning for Summer Technology PD workshops	Assistant Superintendent	By October 2016
Send a team to ACTEM conference (classroom teachers and integrators) who share their learning experiences with all staff in their schools	Administrators	yearly
Integrate technology into content-area professional development	Staff responsible for staff development and Technology Integrators	Ongoing
Access free staff development provided by MLTI and Apple for secondary staff	Technology and Learning Commons staff	Ongoing
Combined staff development time for grades 5-6- learning with one-to-one technology	Technology Integrators and Lead Teachers	● Summer of 2016-Chromebook Boot Camp: Preparing for a one-to-one classroom-choice ● 4 workshops during 16-17 school year-all ● Monthly after-school workshop-choice
Support implementation of a new reporting system	Assistant Superintendent, principals, technology integrators, lead teachers	● 2016-2017 Middle School, Grade 9, Grade 5 and BHM Elementary school K-5 ● By Fall of 2019 all students will be in the new reporting system
Combined Staff Development Time for grades 3-4- Learning with one-to-one technology	Elementary Technology Integrator and Lead Teachers	● Summer of 2017-Chromebook Boot Camp: Preparing for a one-to-one classroom-choice ● 4 workshops during 17-18 school year-all

		● Monthly after-school workshop-choice
Combined Staff Development Time for grades K-2-Learning with tablets	Elementary Technology Integrator and Lead Teachers	● Summer of 2017-Tablet Boot Camp:Preparing for a technology-rich classroom- choice ● 4 workshops during 17-18 school year-all ● Monthly after-school workshop-choice

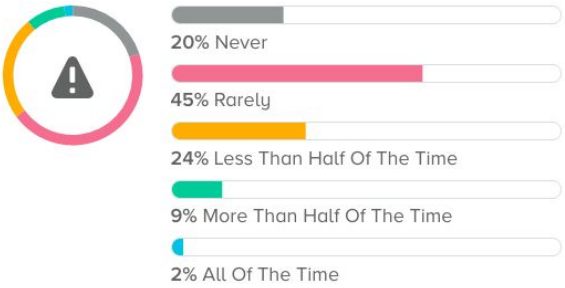
Section IV, Part D: Learning-Focused Access

Results of the Data

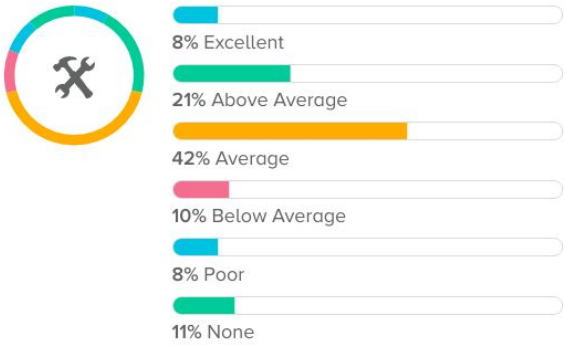


Student Access to Internet and Wireless at Home

Teachers report that school filters prevent access to websites needed for classes

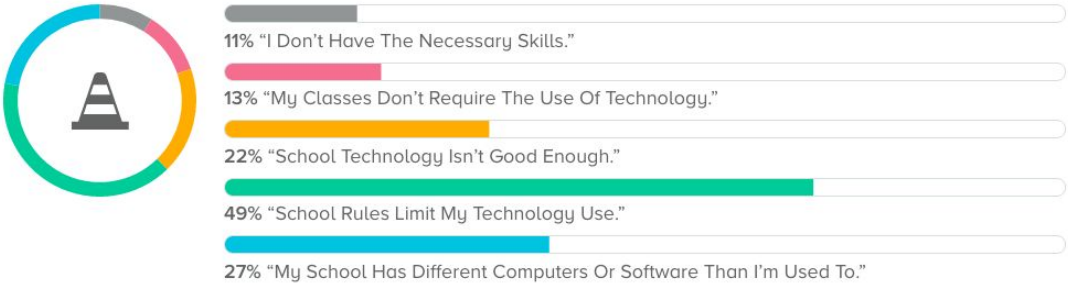


Teachers report that the quality of support for hardware repair is



Student-reported membership in student groups that provide technology support at school

Students believe the following obstacles prevent their use of technology at school

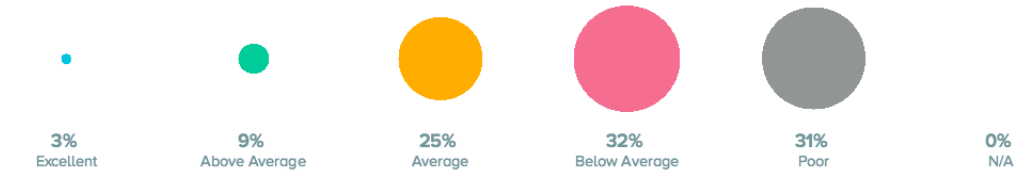


The perceived quality of computers at school as reported by teachers is

Msad 75

FRAMEWORK: Technology & Learning
DOMAIN: Access
SUCCESS INDICATOR: Students At School
VARIABLE: Student Access To Technology At School

DATA FROM: Jan 1, 2016 To Present
FILTERED TO: Elementary

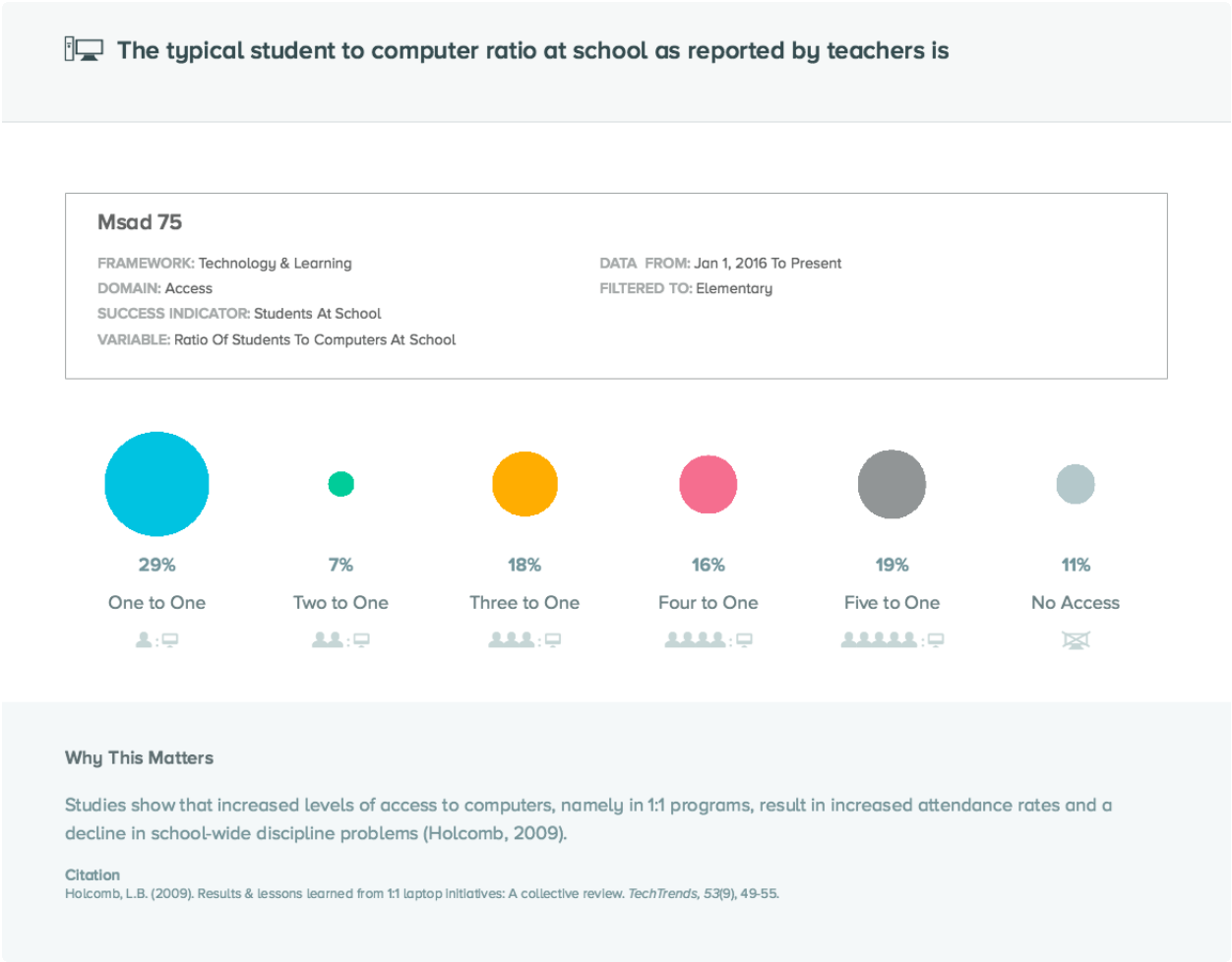


Why This Matters

Reliable, high quality technology makes possible things, such as connecting with peers from other parts of the world, increased collaboration, and lifelong learning habits (Mediaplanet & Duncan, 2014).

Citation

Mediaplanet (Interviewer) & Duncan, A. (Interviewee). (2014). *Teaching our teachers: Arne Duncan on bridging the digital divide* [Interview transcript]. Retrieved from http://www.classroomtechnologynews.com/education-advocacy/teaching-our-teachers-arne-duncan-on-bridging-the-digital-divide



Section IV, Part D: Learning-Focused Access Implications

The data here generally shows positive information. Student internet access at home is higher than we had expected. In district, 88% of teachers believe that internet access is at least average. Wireless access points in schools reporting less than average are being upgraded in the summer of 2016.

When digging deeper into the data, it becomes apparent that the elementary schools are in need of improved access to technology. This data includes grades K-6 teachers. Our sixth grade students are in the Middle School where they have one-to-one access. In the five elementary schools the level of access depends on many variables, but it is not the same due to monies available to purchase the last round of MLTI laptops. Our elementary math program expects a blended approach to learning opportunities. In addition, starting in grade 3, there is more emphasis on research and collaboration. In a recent K-5 science survey, teachers reported that over 50% of their content comes from online sources. Our reporting system will include the ability for students to complete online, interactive learning opportunities. These learning-focused uses for technology cannot take place unless we provide the devices for the work.

Quality is another issue. Many of the MLTI laptops from the 2010-2013 lease are coming to the end of their "lives". Costs to replace batteries along with the time to do the repairs is increasing. Replacement parts are no longer made for these devices and batteries are becoming increasingly scarce.

With the decision to "refresh" devices at the high-school, we can no longer rely on the model of buying old devices to replace even older devices. Nor does it make sense to purchase used devices that are more of a good deal than they are a fit with the needs of our students. We are at a turning point where we need to make decisions that are best for our learners, while being mindful of our fiscal responsibilities to our communities.

Part D: Learning-Focused Access Actions

Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Upgrade wireless infrastructure at elementary schools	Technology Department	End of Summer 2016
Replace existing technology with one-to-one access to a device in grades 3-6	Technology Director	July 2016- July 2018
Replace existing technology with tablets shared in grades K-2 - (one cart per grade level)	Technology Director	July 2017-July 2019
Technology equipment plan for the new high school	Technology/Learning Commons Sub-Committee	Ongoing until school is completed
Explore the creation of a media center in each school including a green screen, tablets for filming/editing, and a recording system	Learning Commons Team	June 2019
Replace existing viewing devices (projector and/or flat screen) as needed	Technology department	Ongoing as needed

Section V: Responsible Use:

<u>(Include CIPA Compliance Paperwork)</u>

- CIPA Compliance
    - The filtering and blocking of unwanted or inappropriate content is handled via the MSLN suggested solution of OpenDNS. OpenDNS provides filtering outside of the district, allowing a free-flow of traffic through our routers and servers, making certain that our traffic isn't bottlenecked at any point. From elementary school through 8th grade, we make certain that all social networking sites that require an age of 13 are blocked from access through our network.
    - Our Acceptable Use Policy lays out the expectations of students and staff to follow ethical, mature, and reasonable rules surrounding the use of the technology. We spell out in plain language that the downloading or sharing of copyrighted material is strictly forbidden and that there will be consequences for those who are discovered to have broken those laws. We also expect that students and staff will behave in an appropriate manner when online, and that bullying of any sort isn't tolerated. Furthermore, when using district resources (devices & network) there is no expectation of privacy.
- Digital Citizenship
    - K-5 currently uses Common Sense Media lessons to address the common areas of digital citizenship. Lessons are taught in the Learning Commons during the month of October and teachers and parents are made aware of the topics discussed. Teachers are encouraged to continue with the language and practices discussed. Clarity data shows that many students are not aware of digital citizenship as well as teachers reporting that they do not teach it. A more focussed approach will need to be addressed to develop common practices throughout the school for safe and responsible Internet use. This will be accomplished through clear expectations shared by leadership and staff development.
    - 6-8: Focus heavily on locating information within a digital resource that supports the validity and credibility of that resource; reiterating copyright and pirating laws, explain that pirating doesn't just happen over the internet, but can be done by swapping software via install disk or even USB drive. Expand

on safe and responsible use of social media, discuss bullying, and the dangers of sharing inappropriate photographs.

- 9-12: Put K-8 practices into use while continuing to reintroduce them through the course of regular learning. Emphasis on this age range is focused on using and creating information online in a legal and responsible manner.

Section VI: Certifications:

By signing below, the superintendent is acknowledging the following:

- The district has completed one Technology Access Survey per school in the district
- The information submitted in the Technology Access Survey is accurate
- The Learning Technology Plan has been approved by the SAU's school committee
- The district is committing to work the plan (recognizing that plans do evolve over time)

RSU/MSAD 75 - 1266 smithb@link75.org

Superintendent Signature Date

Bradley V. Smith 30 June 2016