Brunswick School Department
Brunswick Maine

Technology Plan

Section I: Document Title Page:

Schools Covered by this Plan

Brunswick High School

Brunswick Junior High

Harriet Beecher Stowe School\

Coffin Elementary School

Member of the Committee

Evie Katz, Parent and Community Member

Joy Prescott, School Department Member

Theresa Heald, Speech Therapist Coffin School

Tracy Dearborn, Physical Therapist, Coffin, Harriet Beecher Stowe School and Brunswick Junior High

Amelia Libby 3rd Grade Teacher Harriet Beecher Stowe School

Suzie Ring, Science Department Head Brunswick Junior High

Betsy Mitchell, Librarian Brunswick Junior High

Daurene Jerome, Librarian Brunswick High School

Shanna Crofton, Principal Brunswick High School

John Paige, Curriculum Coordinator

Dan Dearing, Technology Integrator

Mark Rineer, PC Tech Person Brunswick Junior High and Coffin School

Bill Congdon, Tech Person Harriet Beecher Stowe School

Jerry Cross, Mac Tech Person Brunswick Junior High

Mike Nelson, Tech Person Brunswick High School

Mike Hedger, Network Administrator

Sue Woodhams, Director of Technology Integration

Section II: Shared Vision for Learning:

Technology Vision and Mission:

The Brunswick School Department is committed to providing students with a technology rich learning environment through the disciplinary curricula and the integration of with digital resources and multi-media. The Brunswick School Department incorporates technology as a natural part of education through an integrated, comprehensive framework to govern acquisitions, applications, and evaluation of technological resources to ensure that all students have the opportunity to develop the 21st century skills necessary to be productive citizens in our information-driven, global society.

Consistent with the International Society for Technology in Education (ISTE), standards and the Brunswick School Department Technology Benchmarks, **students will become goal oriented:**

- Capable life-long learners
- Information seekers, analyzers and evaluators
- Problem solvers, critical thinkers, and decision makers
- Creative and effective users of information and productivity tools
- Communicators, collaborators, publishers and producers
- Informed and ethically responsible citizens

By using technology and facilitating students' use of technology, **teachers** will:

- Improve instructional strategies to increase student achievement regardless of ethnicity, socioeconomic status, learning styles or abilities
- Accurately and efficiently assess, monitor and communicate student progress to parents, guardians and education personnel
- Continuously improve professional skills through staff development
- Share resources and skills with colleagues.

By using technology and facilitating the use of technology as a tool, **administrators** will:

- Promote the use of technology as an instructional and administrative tool
- Provide, solicit and seek adequate funding for maintenance, support, training and equipment
- Demonstrate vision and leadership for the use of technology in raising student achievement and staff productivity
- Provide immediate and easy access to data sources for instructional and administrative decision making
- Integrate technology into procedures and manuals of the District

Reflection:

Circumstances have moved the Tech Department away from its mission to help teachers integrate technology into their everyday classroom work. Most of the current technology learning demands on teachers are management related – data collection (PowerSchool), teacher evaluation (Teach Point) and curriculum development (Rubicon Atlas). While necessary, these initiatives generate little excitement and a lot of anxiety for most of our teachers since they are complicated and distant from the teaching/learning process. With a limited number of staff development days in the calendar, such times quickly get eaten up by work directly related to being compliant with the overwhelming number of mandates such as the new evaluation system, the special education audit, proficiency mandates and standardized testing. This situation results in a district staff development plan that can be far from the teaching/learning process that teachers would like to be able to focus on. In fact, the current situation makes it virtually impossible for classroom teachers to develop a sustained, viable focus on any staff development need, technological or otherwise.

Short term goal:

Convince district decision makers to work with our teachers to develop one achievable, long-term (3 years) technology goal that focuses on the teaching/learning process and then allocate the necessary budget resources and set aside an appropriate amount of staff development time in order to assure success.

Long range planning:

Develop a district plan that would carve out significant blocks of time for ongoing staff development on priority topics that focus on the teaching/learning process as they relate to the approved district curricula.

Note: Funding for the short term goal would be built into the budgets of and jointly planned/administered by the Curriculum and Tech departments.

Technology Plan's Support of the Brunswick School Department's Strategic Framework 2016-2021

The Vision and Mission of the Technology Plan supports the Strategic Framework 2016-2021 adopted by the Brunswick School Department. Specifically, the Interventions and Next Steps set forth in this document support **Professional Excellence** by ensuring that staff receive the technology support and training necessary to "become innovative professionals who work together to support, educate and inspire our students." This will be accomplished by providing professional development and in-service learning activities that will "strengthen competence and confidence" in the use and integration of technology. The proposed Interventions and Next Steps also support **Student Success** by ensuring that the Technology Plan helps to "build student independence and resilience" as they develop skills using digital technology in the 21st century. In addition, the Technology Plan also encourages **Community Connections** as envisioned in the Strategic Framework 2016-2021. Specifically, the Technology Plan's proposal to investigate the formation of Student Assistant Groups to develop leadership in technology and STEAM initiatives would "provide extended learning and experiential learning opportunities to students."

Section III: Shared Leadership

This section is intended to address the following question: How does the district involve broad
representation of the school community (tech leads, school leaders, teachers, librarians, students, parents, community members) in the learning through technology planning and implementation process? Areas to consider describing who is involved in significant ways in development, decision-making, and plan execution might include the following:

A. The plan for applying technology to the Vision for Learning
   Students will become goal oriented:
   - Capable life-long learners
   - Information seekers, analyzers and evaluators
   - Problem solvers, critical thinkers, and decision makers
   - Creative and effective users of information and productivity tools
   - Communicators, collaborators, publishers and producers
   - Informed and ethically responsible citizens

B. Identifying models and examples of technology use that furthers the Vision
   - Digital microscopes allow students to look deeper into why and how cells interact.
   - Document cameras allow students to provide feedback throughout the solving process.
   - Laptops allow students to develop presentation (visual and verbal) skills.

C. Planning professional learning opportunities
   - Professional development is provided based on specific needs determined by the district or specific requests from staff.
   - When granted official professional development time is used in a full or partial day format with breakouts to target specific technology or software applications.
   - Additional professional development is offered regularly in after school sessions when professional development time is not available for technology skills.

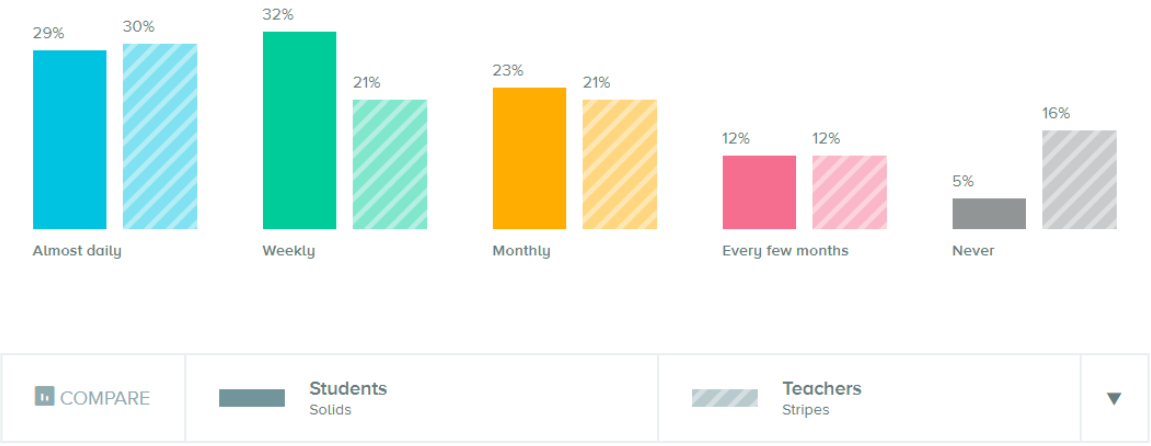
D. Selection of devices, apps, programs, and other tools
   - All staff are invited to participate in building technology meetings where many requests for devices, apps, software, and other tools are made.
   - Additionally any staff member may request in writing specific technology for their class with a proposal highlighting the technology, planned use, and evaluation of its effectiveness.
   - These requests are evaluated by the technology team to determine the best and most cost effective means to achieving results. Recommendations are then made to staff and the Board.

E. Filtering and blocking policies
   Appropriate Use Policies and policies related to discipline and corrective measures for inappropriate use

Section IV: District Learning Technology Data and Action Plan:

Section IV, Part A: Student Learning & Teacher Practices
Results of the Data

- Comparison of student and teacher at Brunswick High School: Reported frequency of computer use in the classroom



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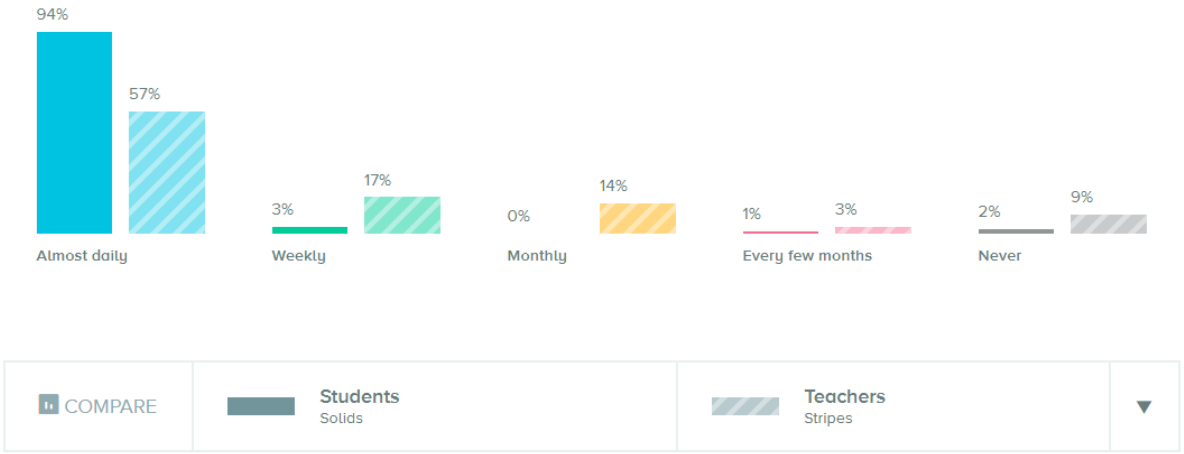
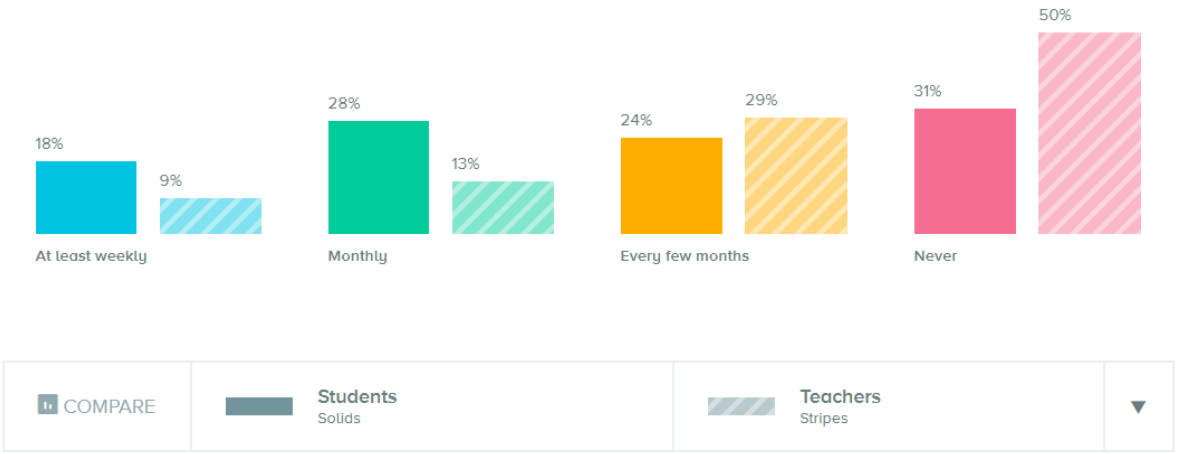


- Comparison of students and teachers at Brunswick High School: Students are asked to collect and analyze data



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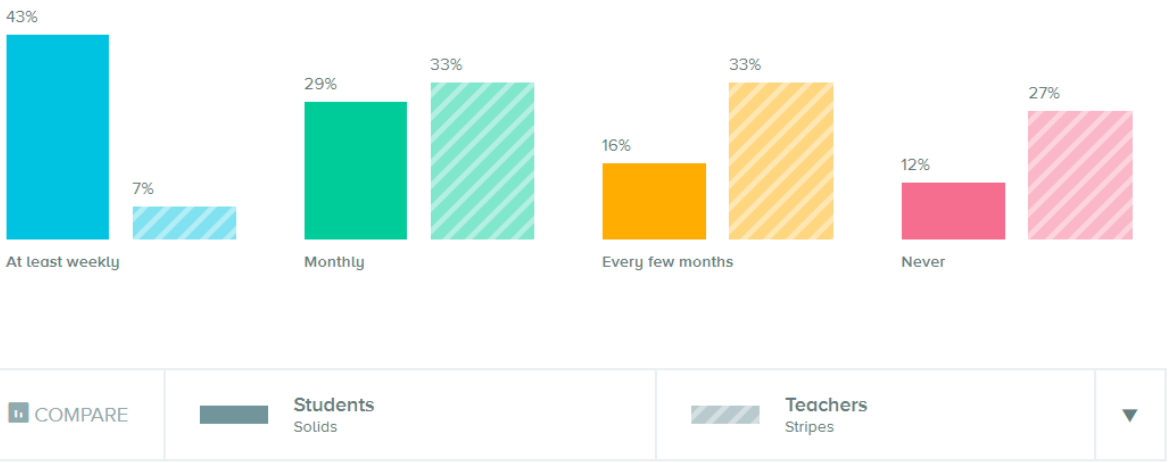
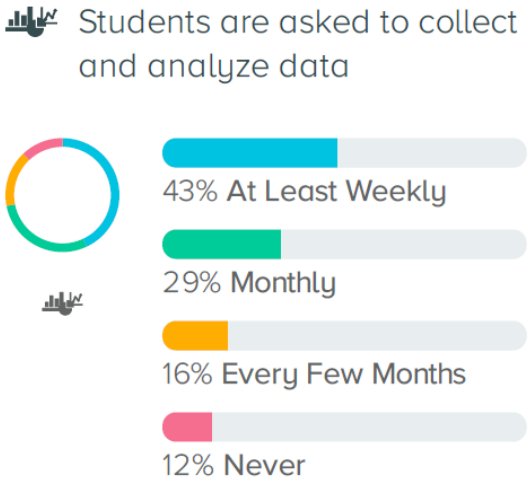
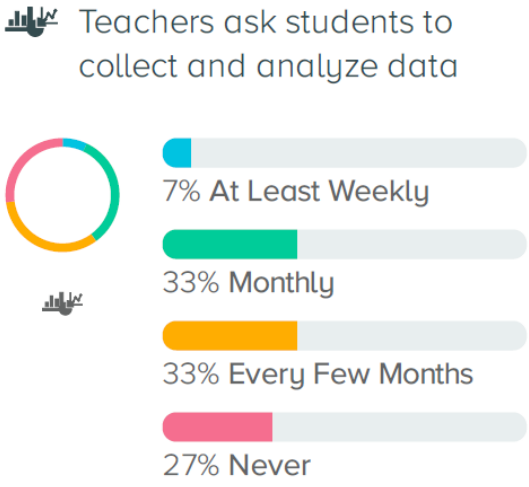


Brunswick Junior High Data





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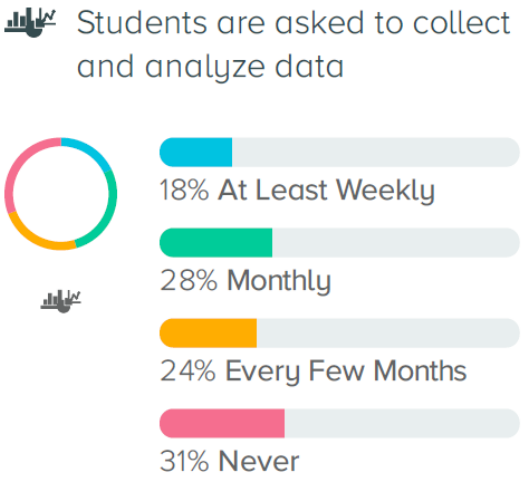

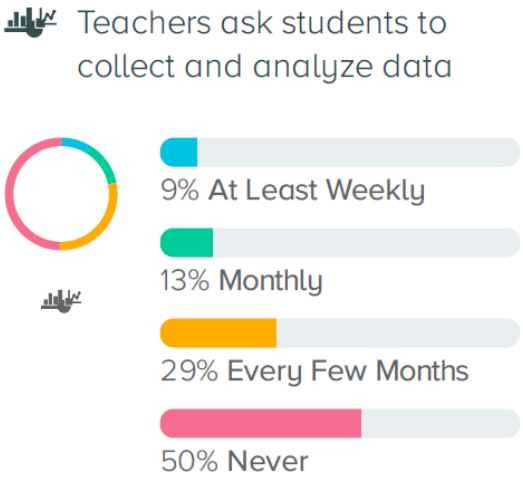

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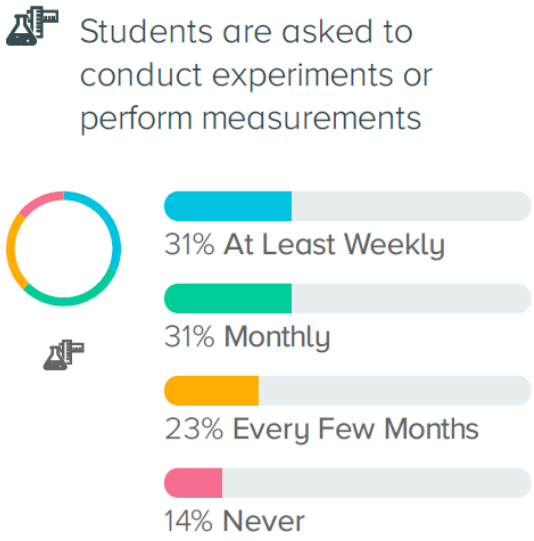

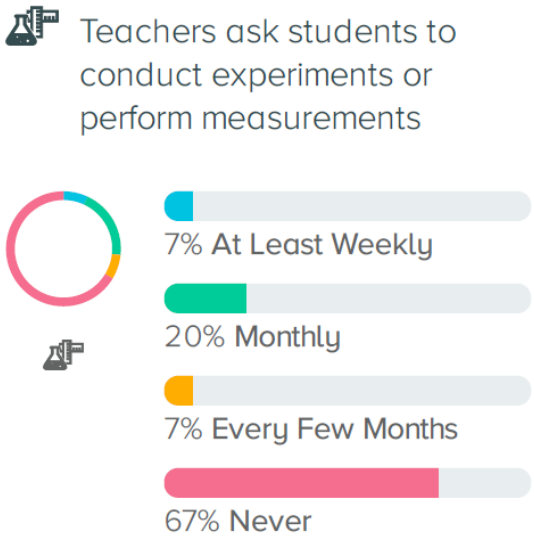

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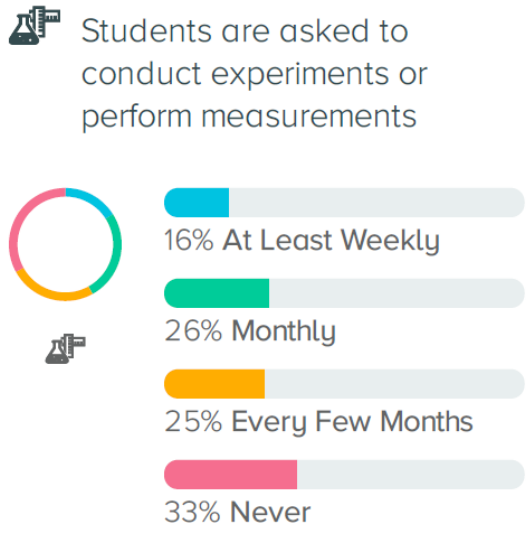

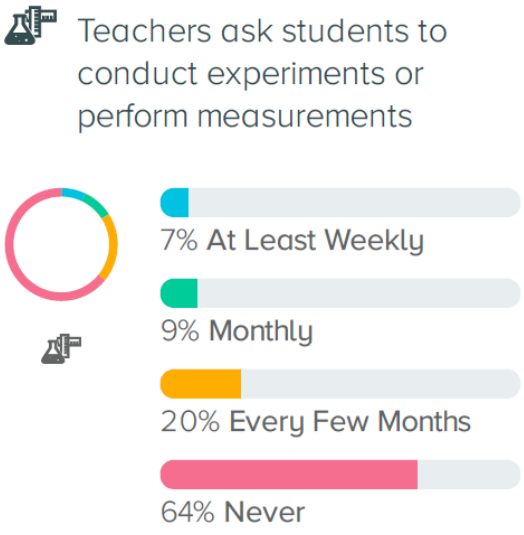

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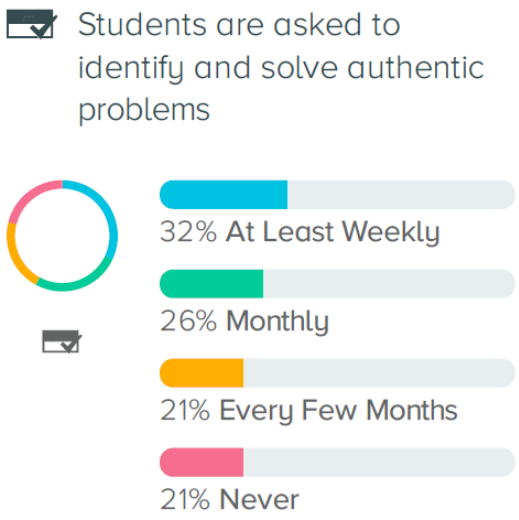

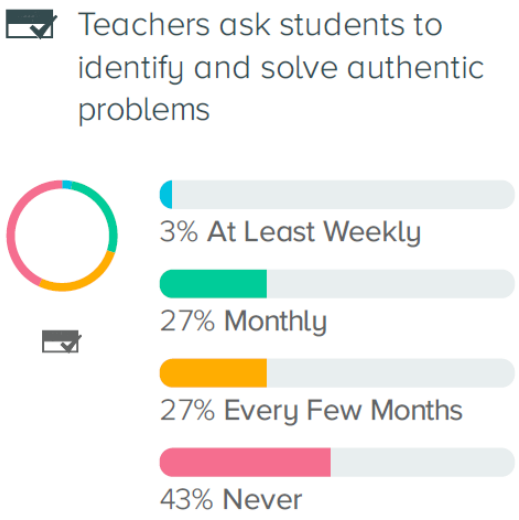

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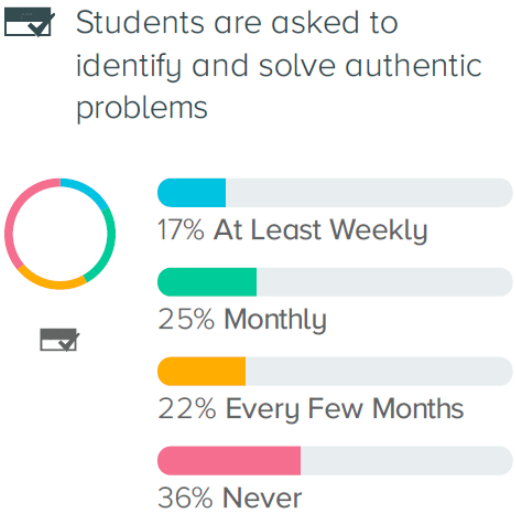

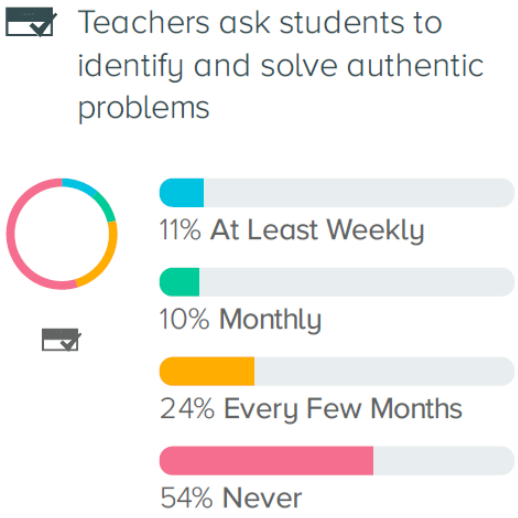

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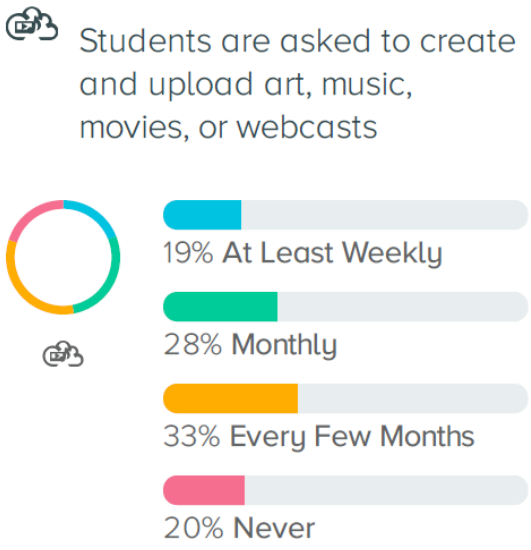

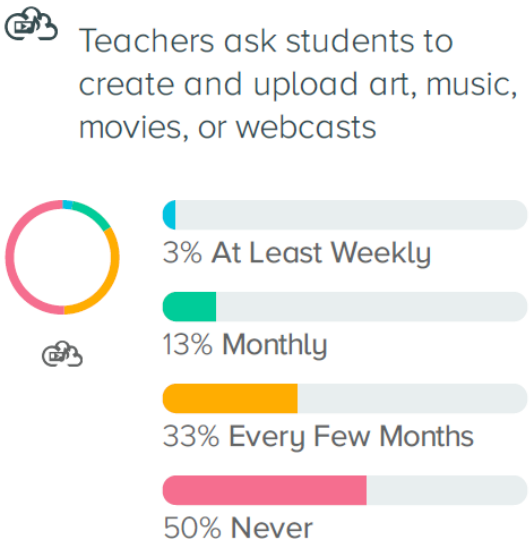

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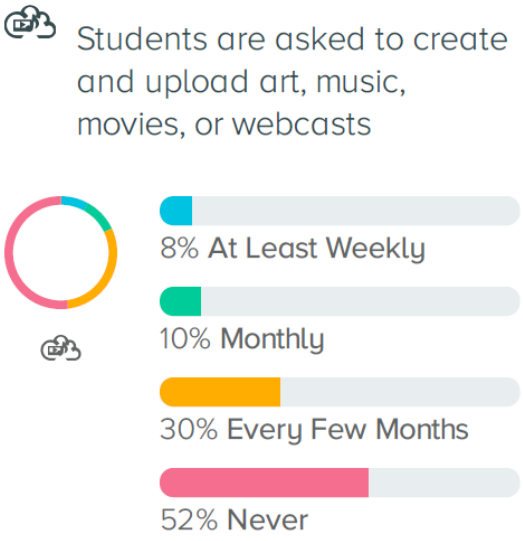

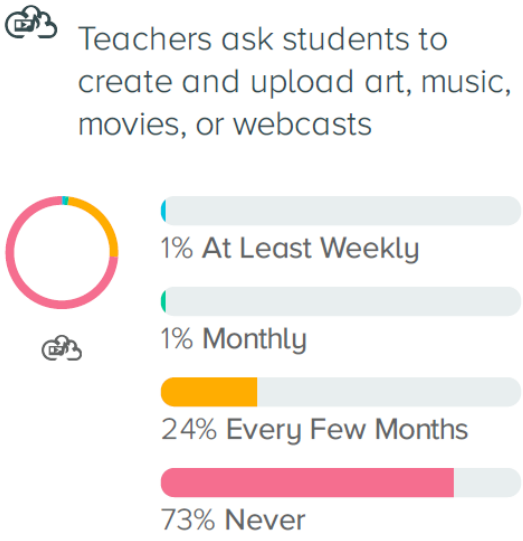

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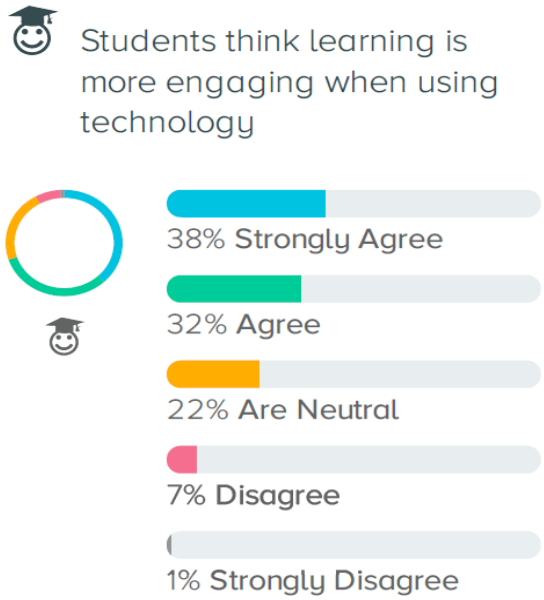

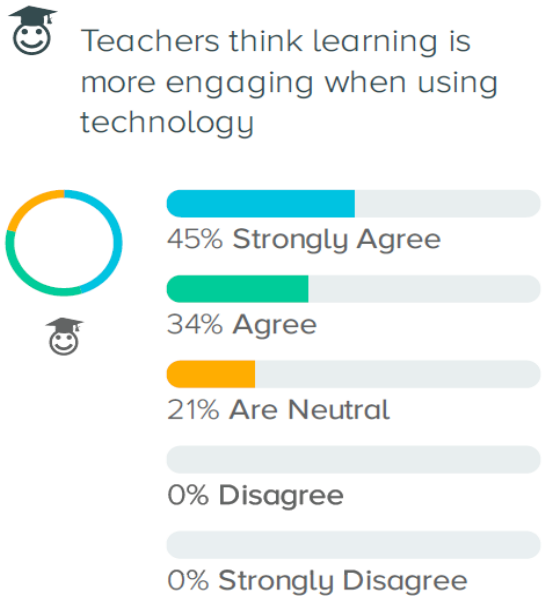

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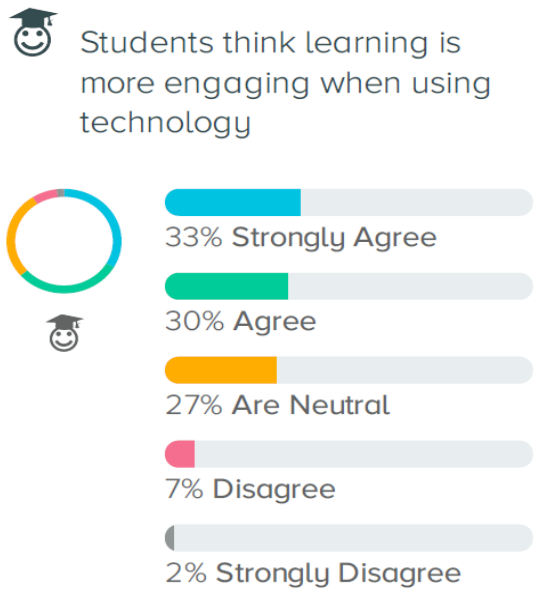

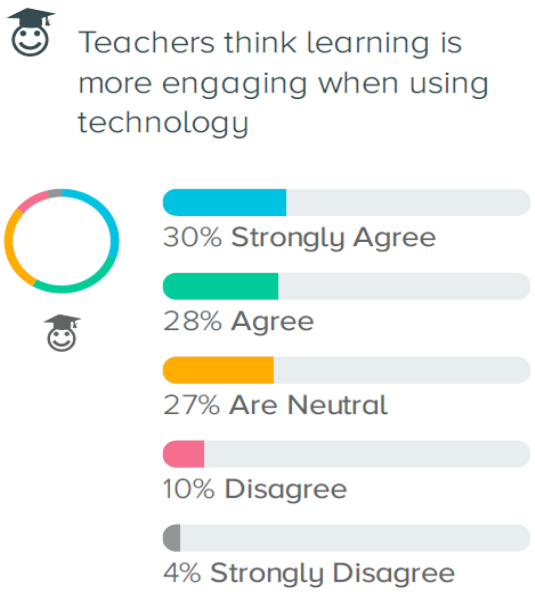

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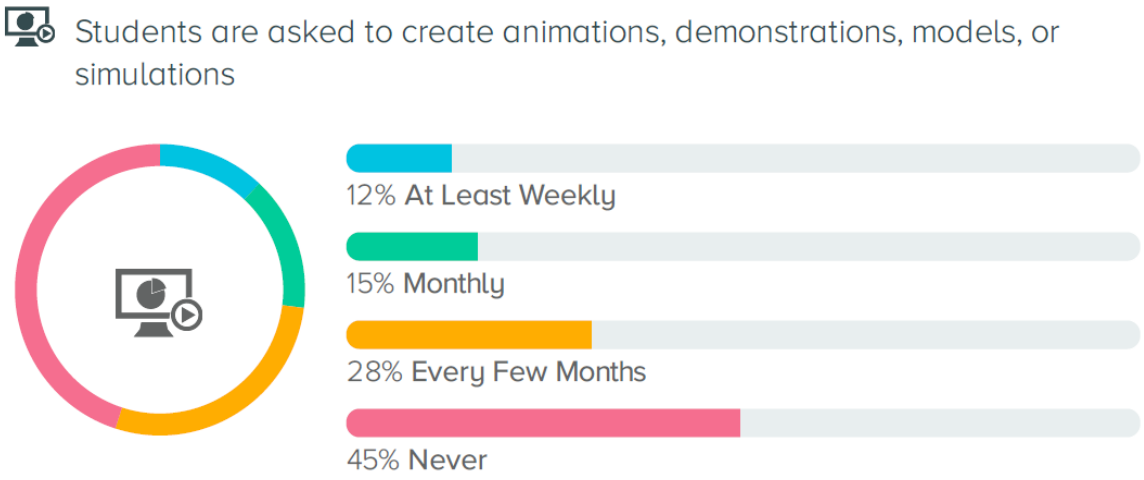

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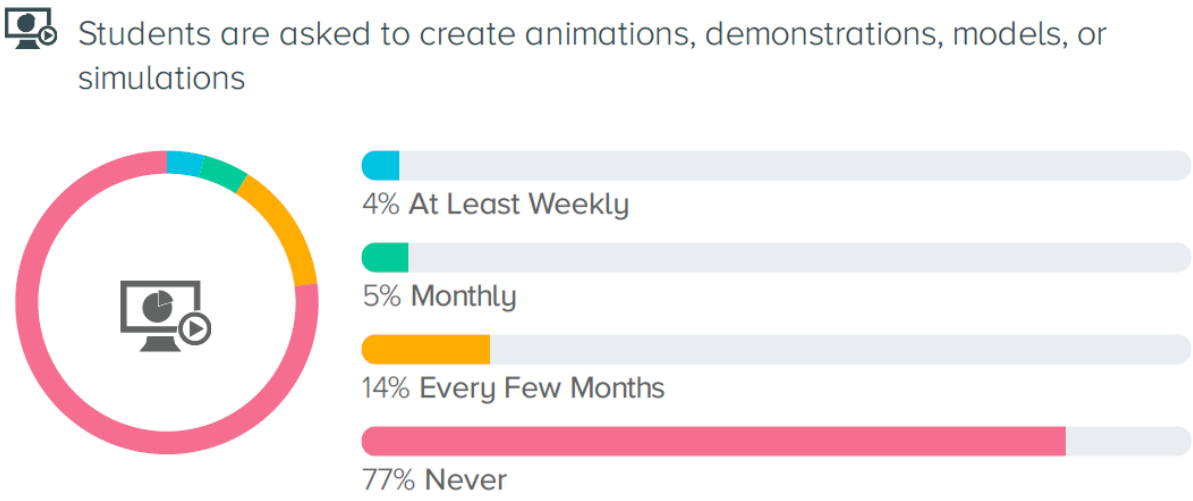

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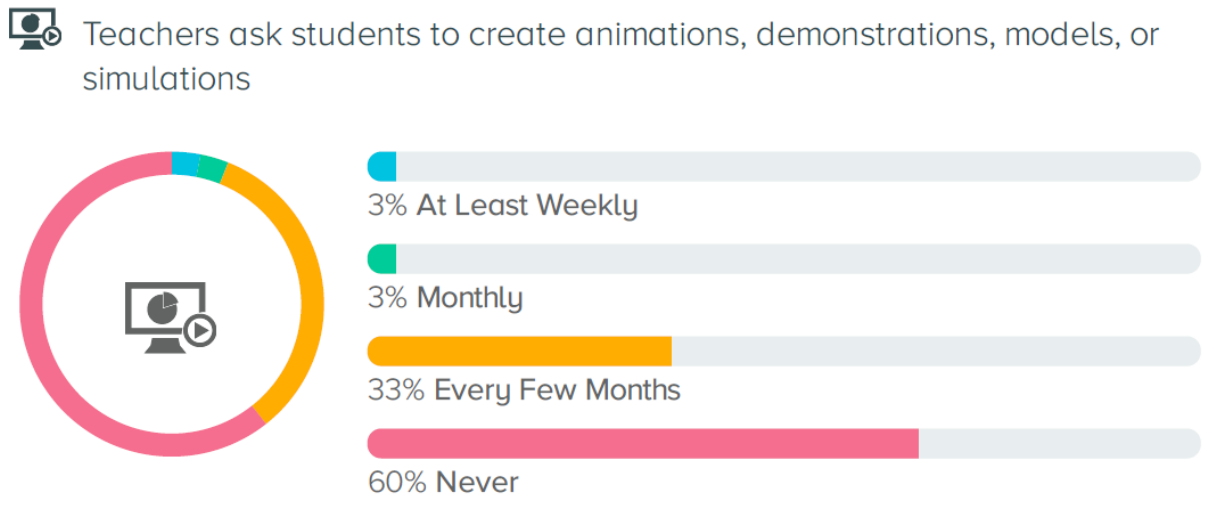

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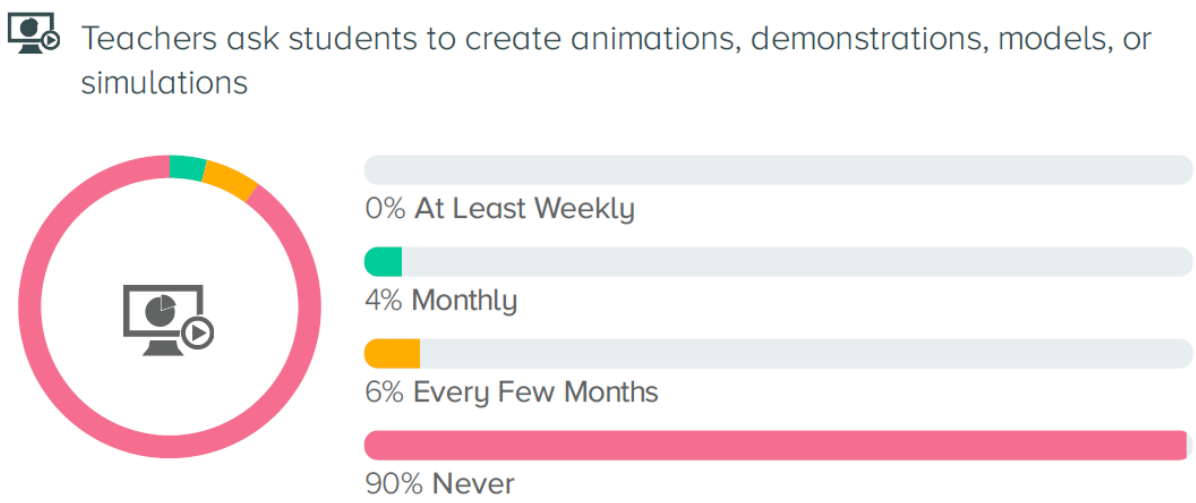

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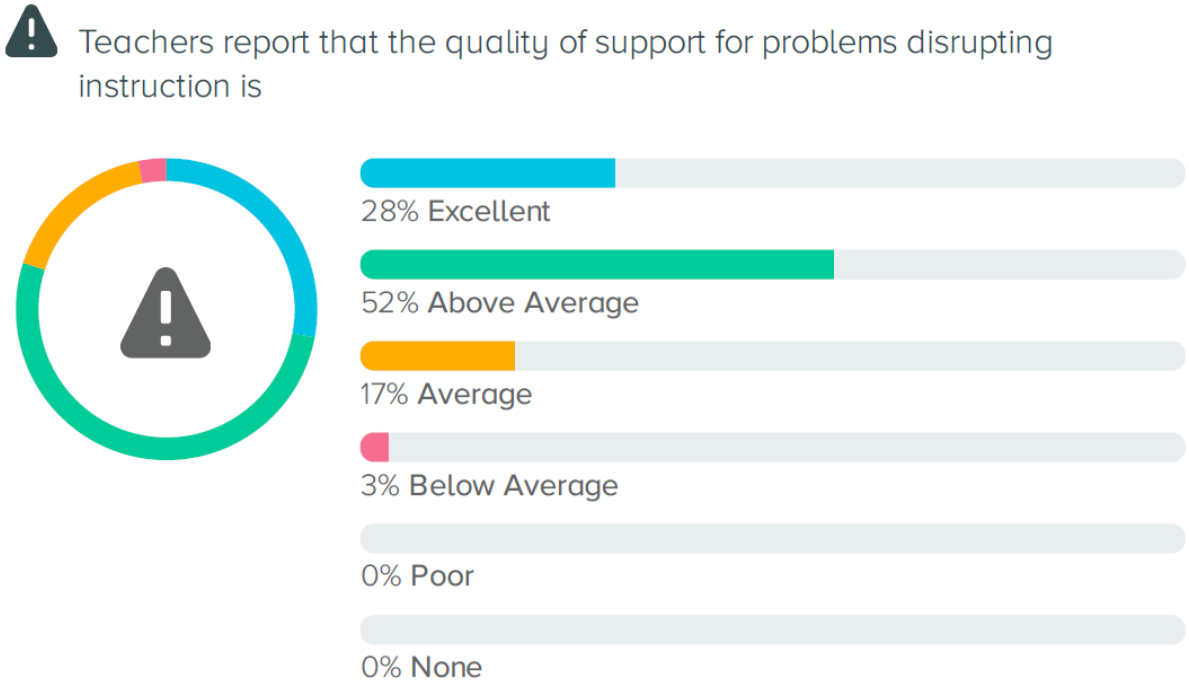

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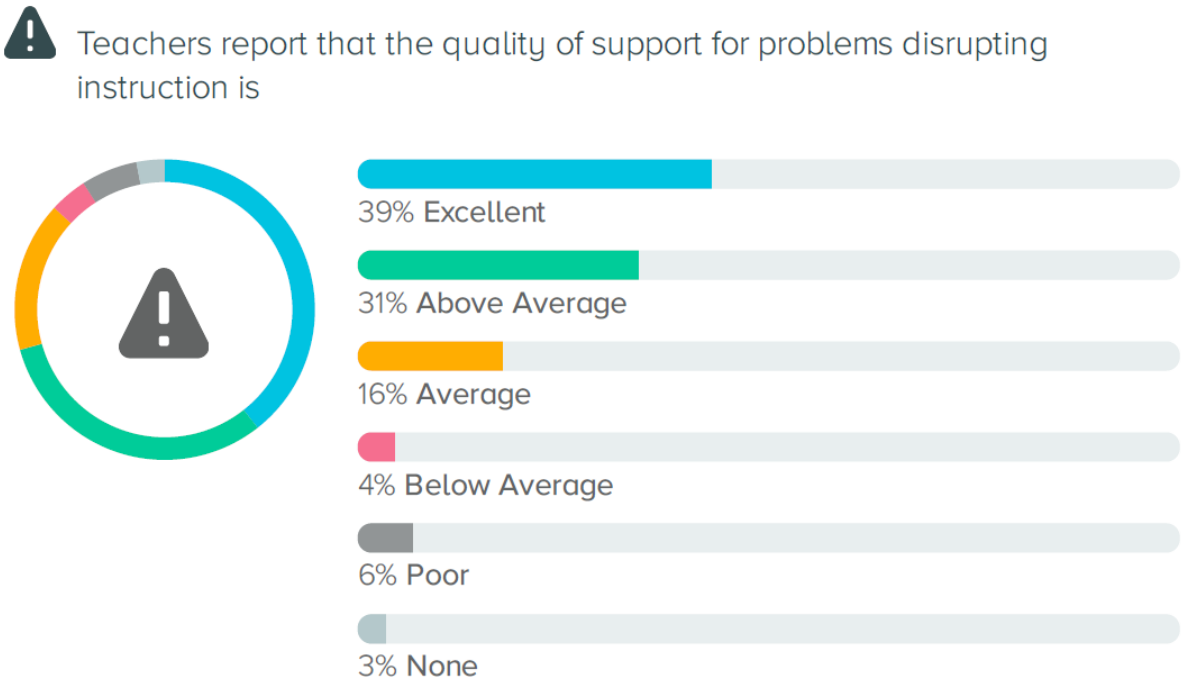

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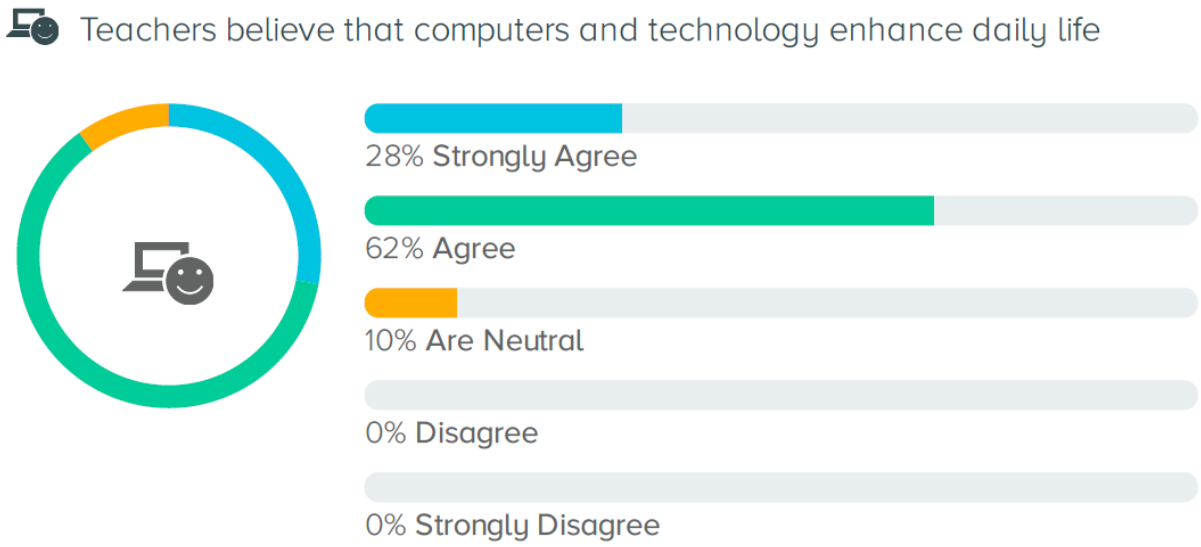

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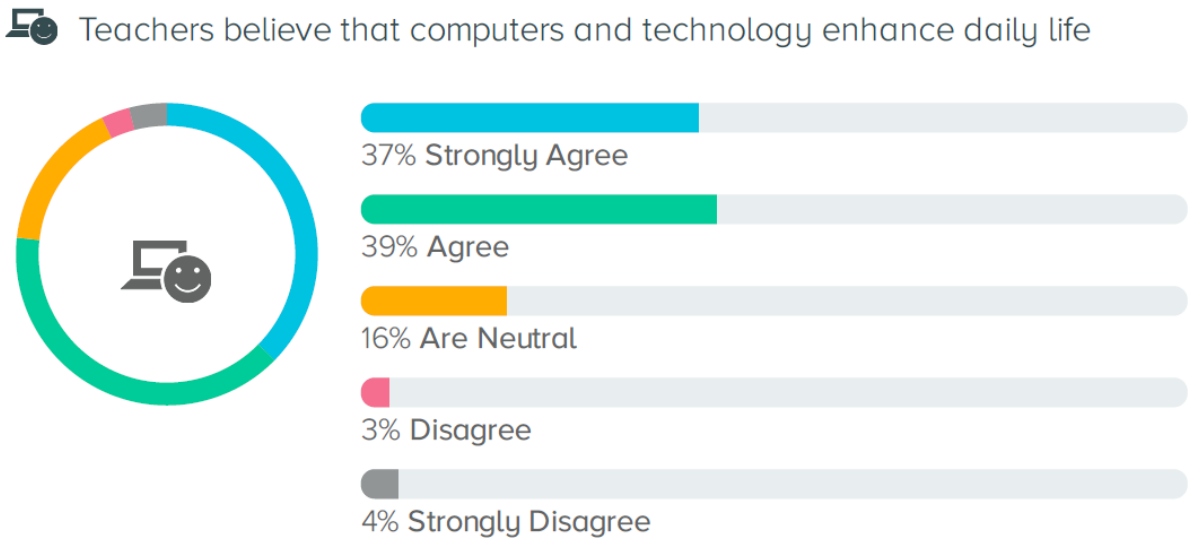


Implications
The BrightBytes Clarity survey was administered to students in grades 7-12 in the Spring of 2016. Brunswick High School has a ratio of .76 computers per student and the ratio for Brunswick Junior High 7th and 8th grade students is one to one. We can see that there is a difference between what students perceive and what teachers perceive in regards to technology use in the classroom. There is also a difference between the perceptions of teachers and students at Brunswick Junior High School and the perceptions of teachers and students at Brunswick High School.

Students could be generalizing

- Students see more than one teacher, so when responding they may be generalizing
- The data reflects that lack of use in problem-solving, data analysis and creative use of technology need to be woven together with current units of studies in all curricular areas

Difference between what is perceived

- There is a wide disparity between the perceived daily use of technology between the high school and junior high school. However, at the high school, students and teachers' perceptions were consistent. At the junior high school, there is a 37% disparity between students and teachers daily use of technology in the classroom.
- There is a wide disparity between the perceived frequency and the types of tasks (analyzing data, conducting experiments, problem-solving) students are asked to complete using technology at both the high school and junior high school. This may be due to a difference in understanding of the types of tasks students are being asked to complete as evidenced by the students' and teachers' responses.

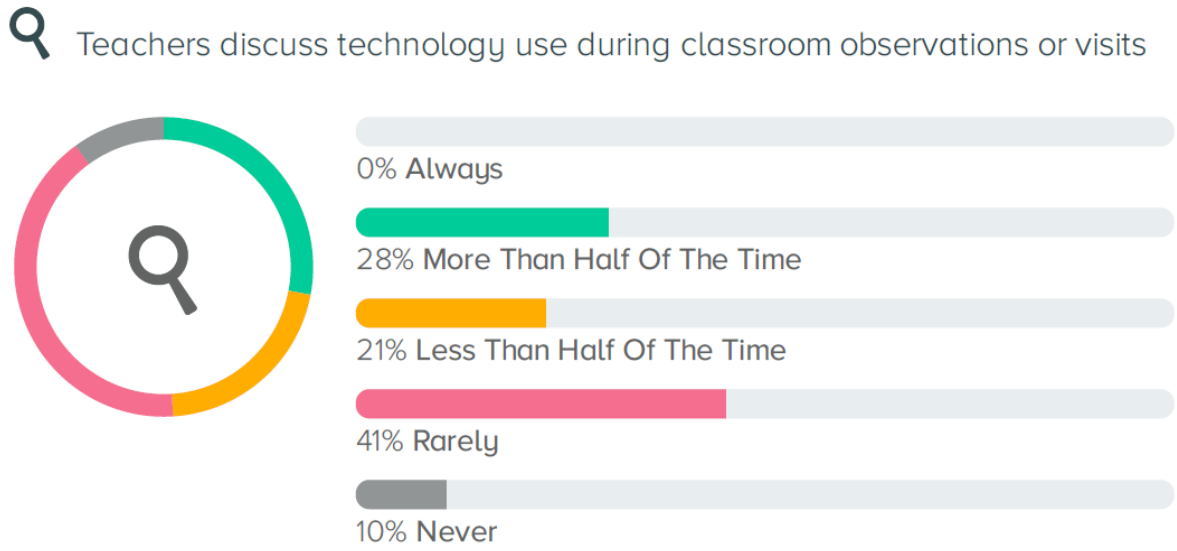
The survey shows that most teachers and students at both Brunswick High School and Brunswick Junior High agree or strongly agree, that "learning is more engaging when using technology." This supports the notion that teachers and students find technology to be an important learning tool.

Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Professional Development	Technology Support Administrators Technology Integrators	Ongoing

Summer Training opportunities (Google Classroom, Word Press. Power Teacher Pro, Turn It In)	Technology Support Administrators Technology Integrators	Ongoing
Integrate technology training into content area professional development	Technology Support Administrators Technology Integrators	Ongoing

Section IV, Part B: Leadership for Learning Through Technology
Results of the Data

Brunswick Junior High Data



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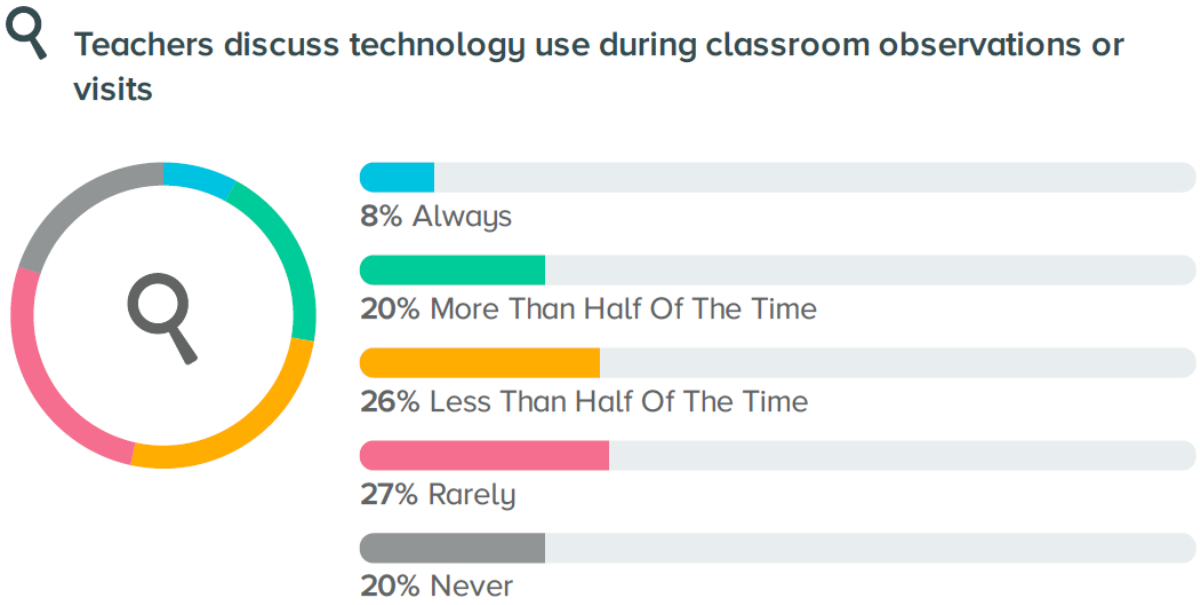

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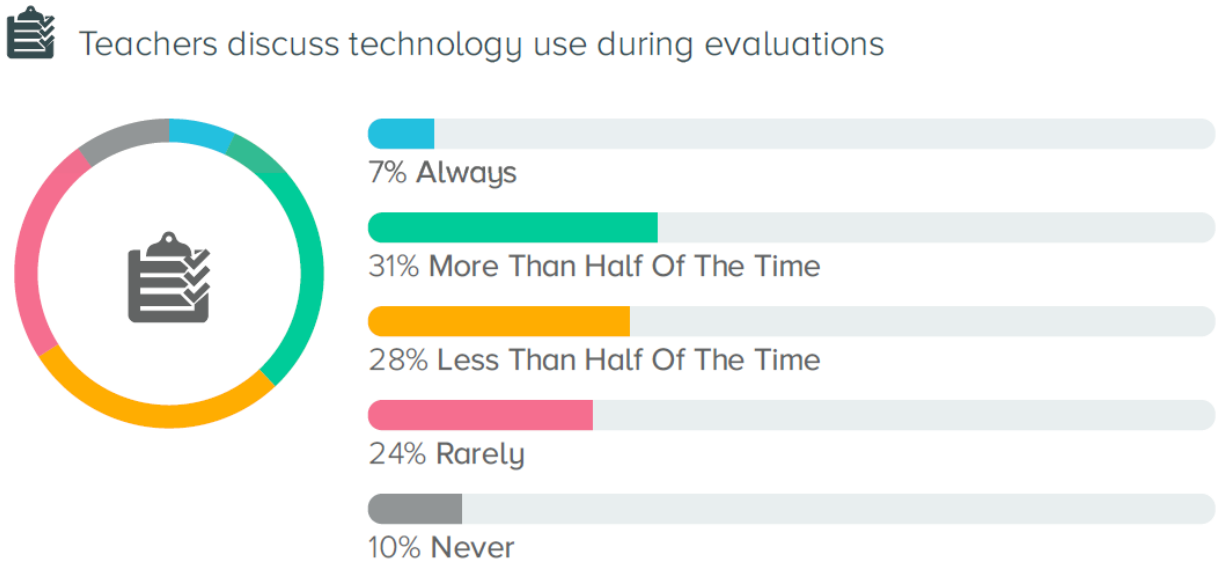

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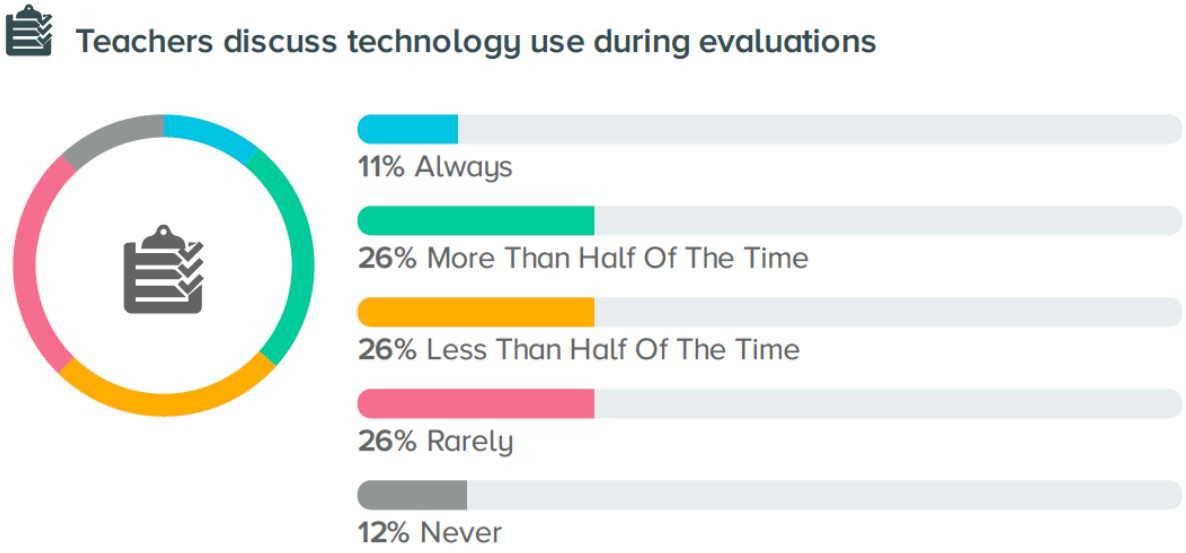

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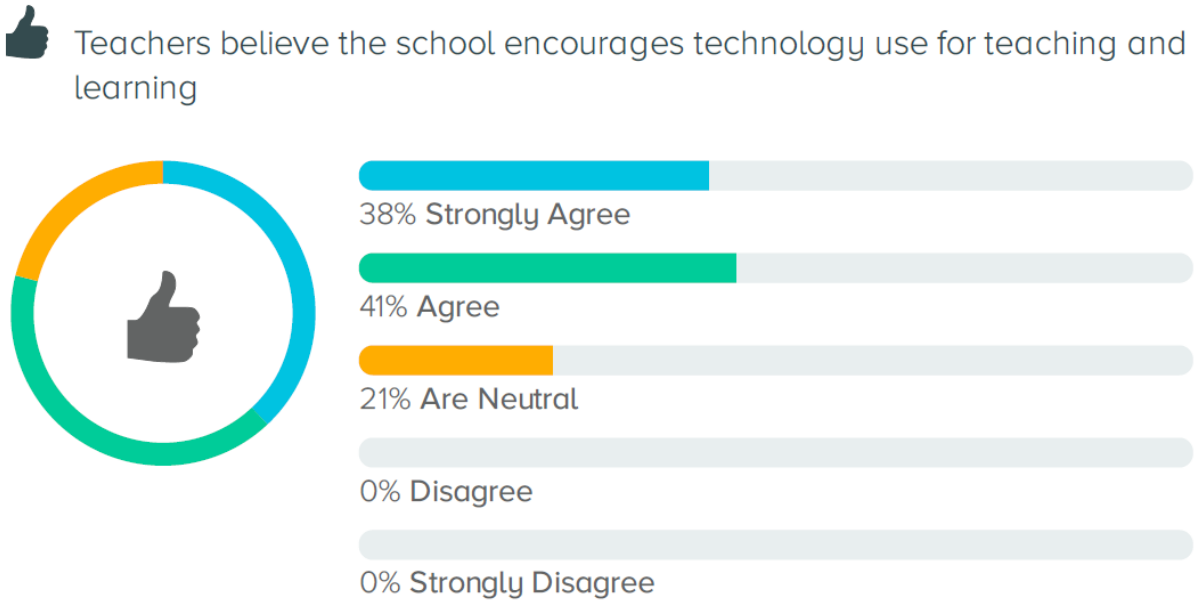

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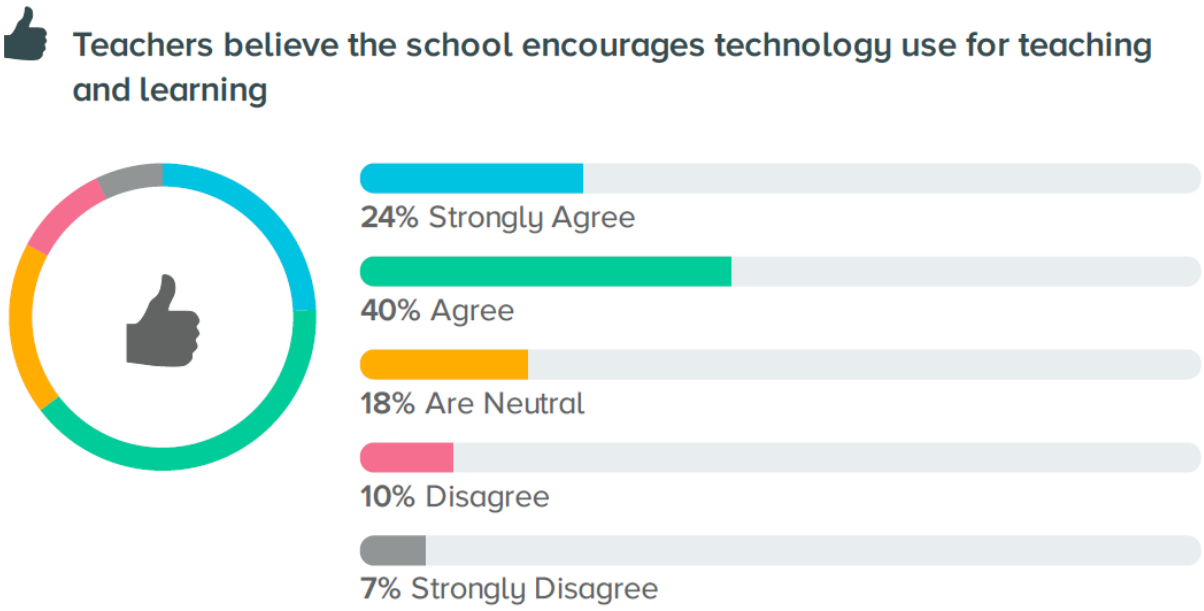

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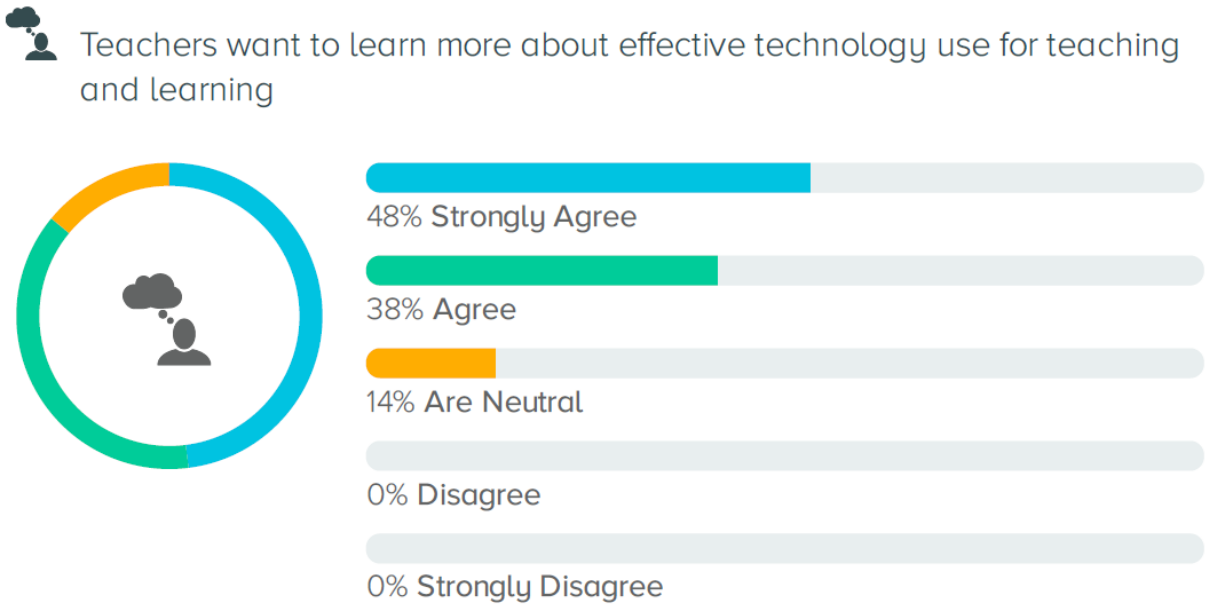

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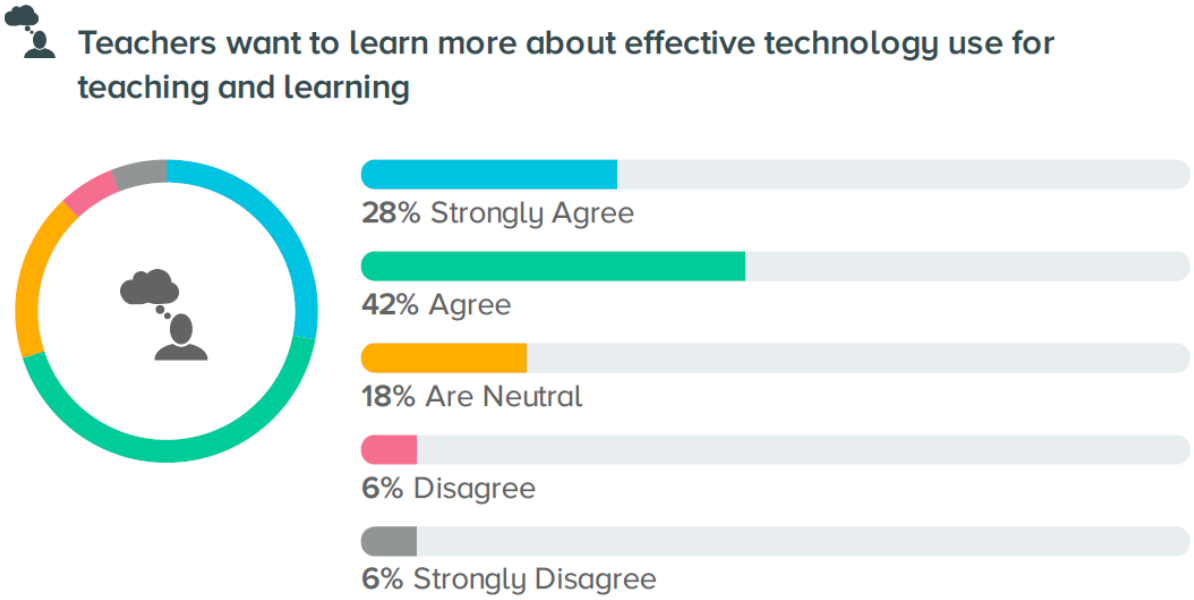

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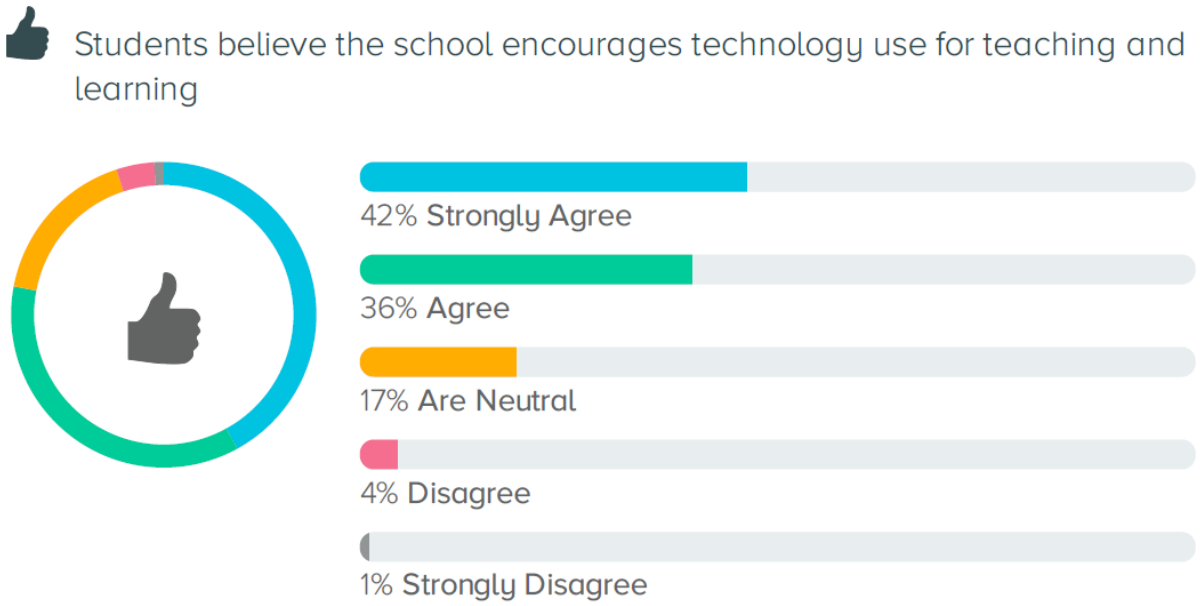

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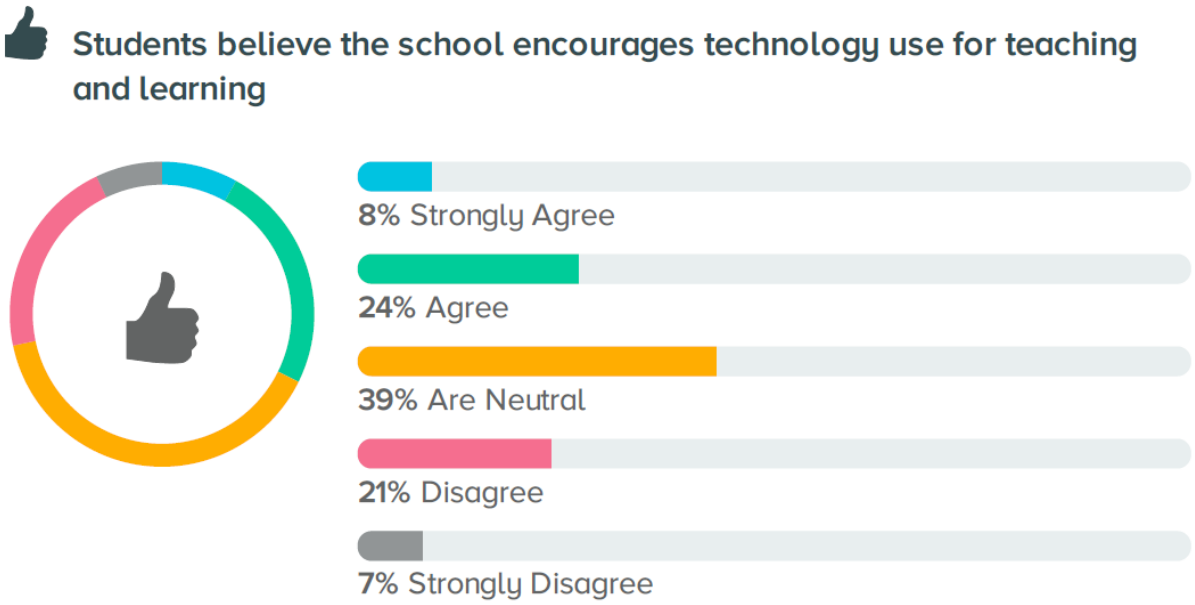

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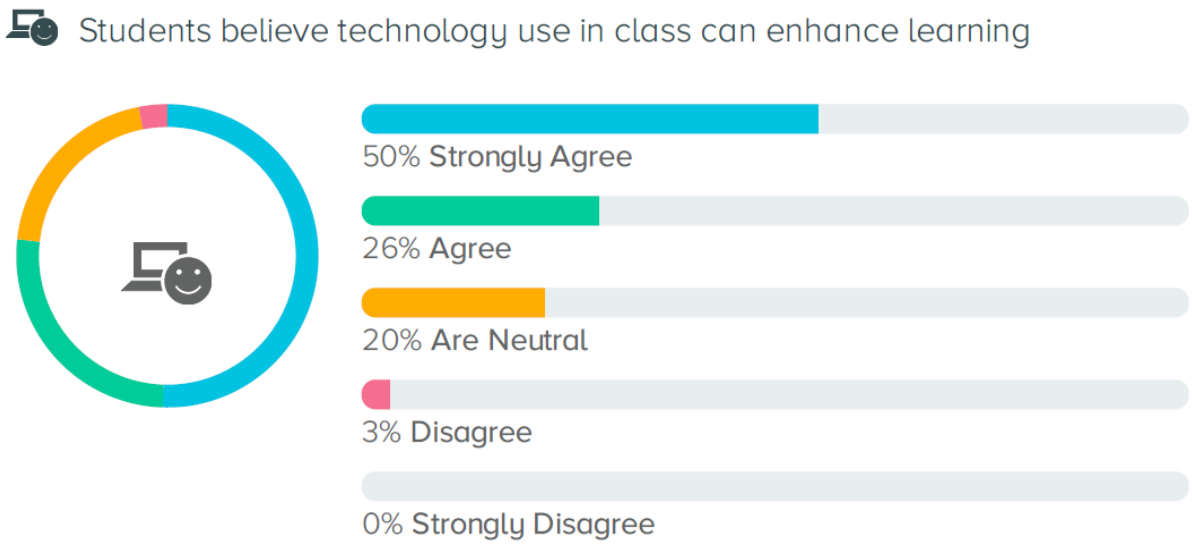
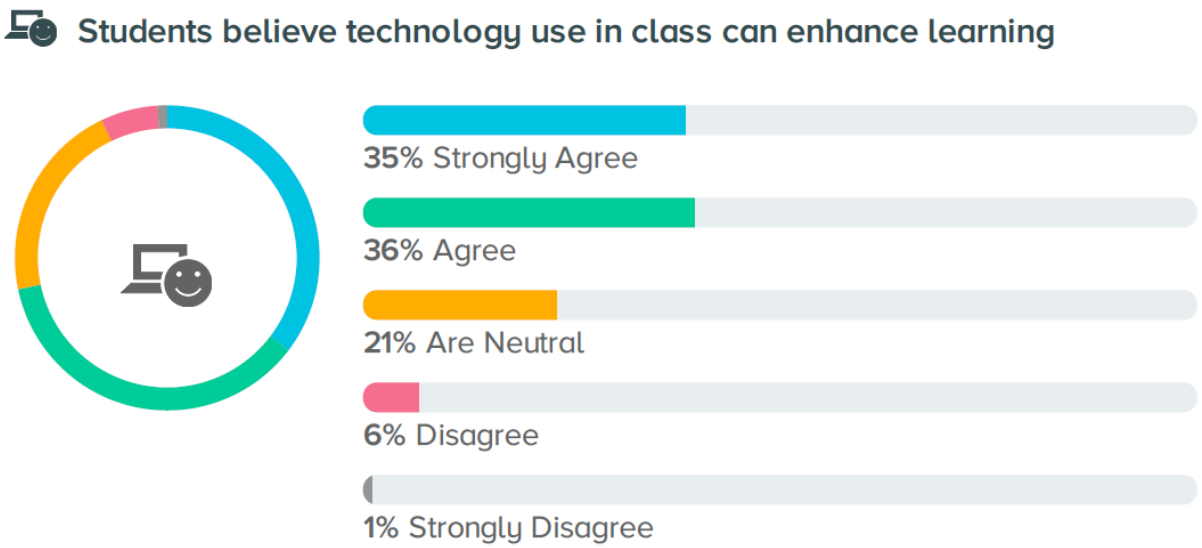


Brunswick High Data



Implications:

Explain the results that were received from this data collection. (May be taken straight from the BrightBytes custom reports.)

In analyzing the data, it is important to note that the high school ratio of computers to students is not 1:1 like the junior high.

Teachers discuss technology use during observations and evaluation.

- Although 79% of teachers at the JH believe the school "encourages technology use for teaching and learning", and 64% believe the same at the HS level, the data reflects that 51% of JH teachers and 47% of HS teachers rarely or never "discuss technology use during classroom observations". An even higher percentage (62% JH and 64% HS) of teachers respond that they discuss technology use, less than half the time, rarely, or never during formal evaluation discussions. The data reflects that although both schools appear to encourage technology use, there is little or no formal measurement or discussion of actual technology use as it applies to evaluation. The use of technology therefore needs to be included in teacher evaluation observations and discussions.

Teachers believe the school encourages technology use for teaching and learning.

- Teachers at both schools generally agree that their schools encourage technology use. While there is no disagreement with this statement at the junior high level, a small percentage (17%) of high school teachers disagree, with an additional 18% remaining neutral. With the many technology changes implemented since the time of this survey, the only way to determine whether this figure is still legitimate is to conduct another survey and follow up on the results if the data reflects the need.

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

- 86% of junior high teachers and 70% of high school teachers agree that they want to learn more on using technology to enhance teaching and learning. These high percentages represent a willingness and desire to participate in professional development opportunities related to technology use.

Students believe that the school encourages technology use for teaching and learning.

Students believe technology use in class can enhance learning.

- 78% of junior high students agree that their school encourages technology use, but only 32% agree at the high school level. Only 22% at the junior high level are neutral or in disagreement with this statement, while the percentage increases to 67% at the high school level. Given the many technology changes at the high school since this survey was conducted, the results warrant investigation and follow-up as to why the large percentage difference between schools and as to whether high school students still perceive a lack of encouragement of technology use at their level. In conjunction with these findings, a high percentage of students in both schools believe technology use in class can enhance learning, yet the majority of high school students feel the school does

not encourage technology use. The 1:1 (student: computer) computing at the junior high level, versus access only at high school, may be a factor in the difference in student perceptions in encouraging technology use. To determine whether there is actually any teaching and learning benefit to 1:1 (student: computer) computing, and to encourage curricular integration, we need to conduct a literature search and analysis of the findings to determine whether 1:1 computing, versus the availability of technology when needed, increases student learning and test scores.

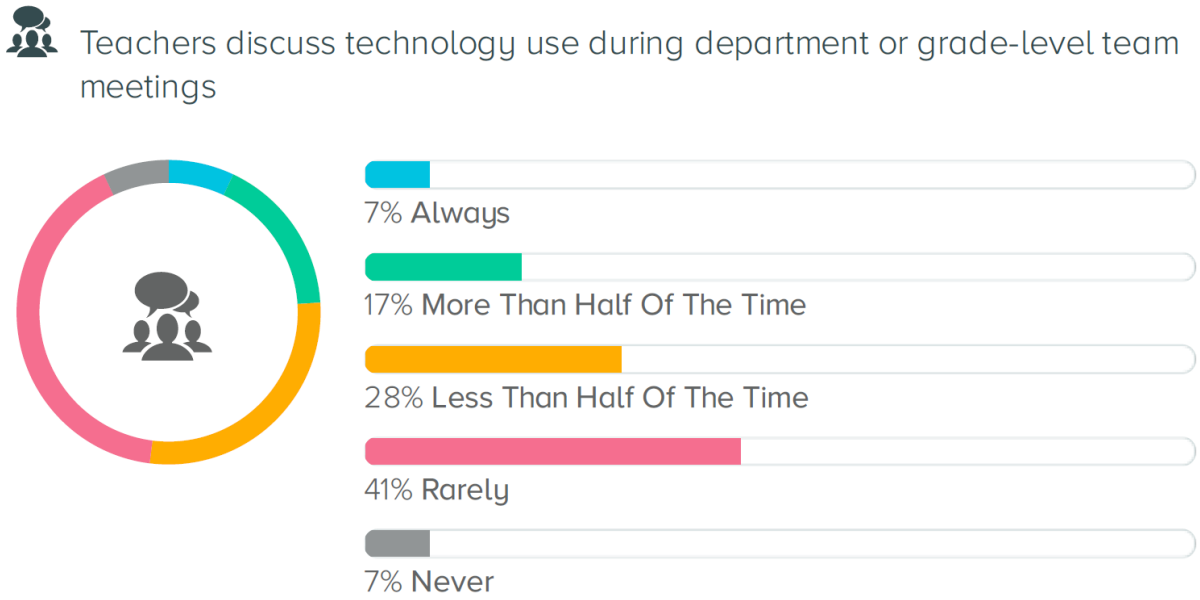
Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Include evidence of technology use in lesson observations by including a section titled "Technology Use" on the "District Walk-Through Observation Forms".	Supervision and Evaluation Committee School Board Administrators	2017
Conduct a survey to determine if there are changes in teachers' perceptions that schools encourage the use of technology in teaching and learning.	District Technology Committee Administrators	Spring 2018
Survey staff to determine professional development interests and needs.	District Technology Committee School Technology Committees Administrators	2017-2018
On a minimum of two occasions, include time for professional development on the integration and use of technology on professional development days as defined by the annual school calendar.	School Board Administrators	2017 & Ongoing
Include a district sponsored "Professional Development Technology Day" on the annual school calendar and provide workshops on topics related to technology and curricular integration.	School Board Administrators District Technology Team School Technology Committees	Budget 2018 & Ongoing

	Experienced Technology Staff Technology Integrators MLTI Teacher Leaders	
Provide preparation time for staff technology presenters to prepare workshops.	School Board Administrators	Budget 2018 & Ongoing
Fund local and national professional development opportunities for the integration of technology.	School Board Administrators	Budget 2018 & Ongoing
Provide substitute coverage for MLTI Teacher Leaders to attend MLTI meetings during school time.	District and Building Administrators	2017 & Ongoing
Survey high school students to determine why they do not believe their school encourages use /or do then need to use technology	District Technology Committee Administrators Teachers	Spring 2018
Survey junior high students to determine whether they believe their school still encourages technology use.	District Technology Committee Administrators Teachers	Spring 2018
Fund students, teacher supervisors, and transportation to attend the MLTI Student Conference held annually at the University of Maine.	Building Administrators MLTI District Technology Staff (Technology Support Specialist) MLTI Teacher Leader	2017 & Ongoing
Conduct a literature search and analyze the findings on the impact of 1:1 computing on student learning and test scores.	District Technology Sub-Committee	2017-2018

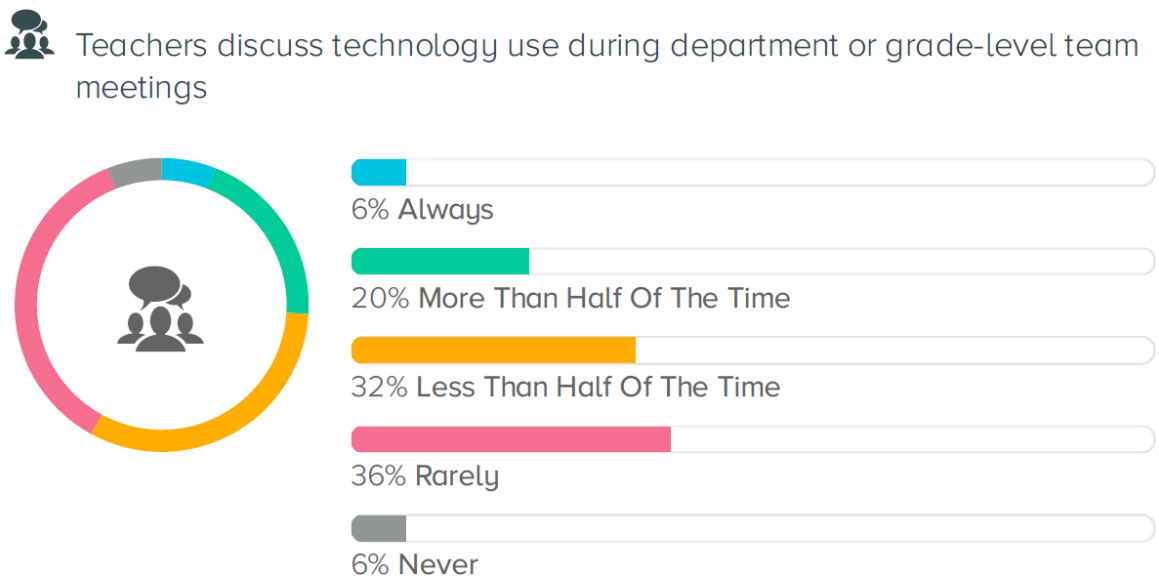
Section IV: District Learning Technology Data and Action Plan:

Section IV, Part C: Professional Learning
Results of the Data

Brunswick Junior High Data



Brunswick High School Data



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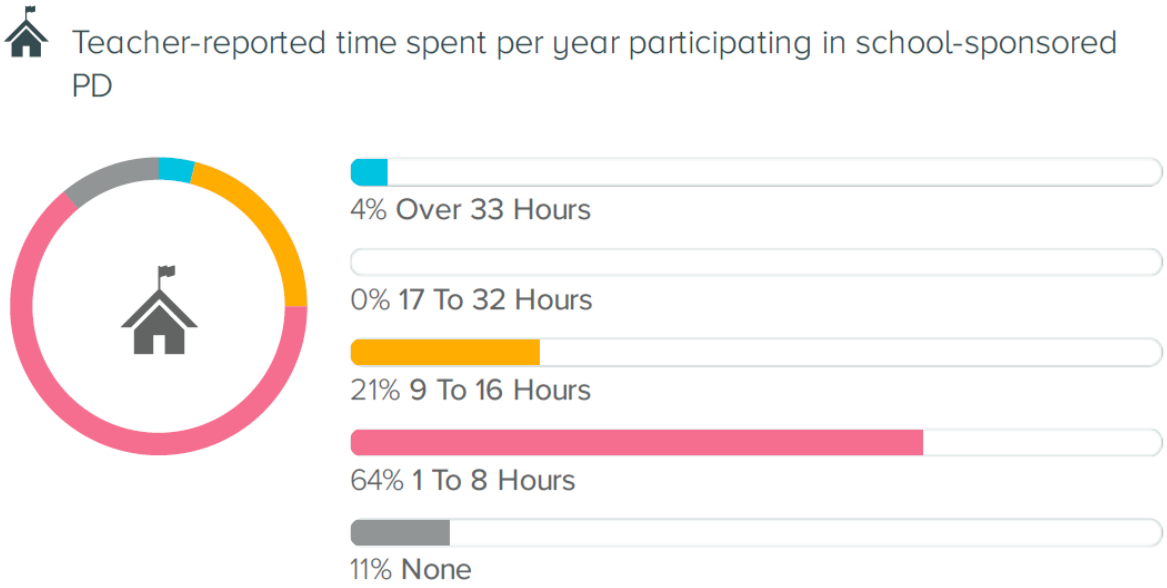

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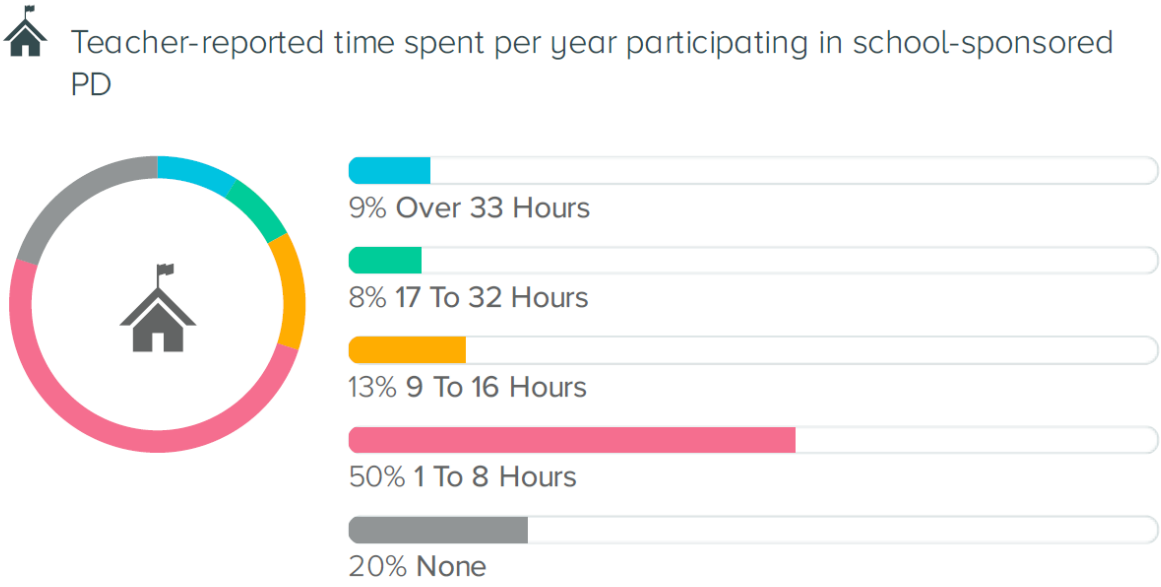
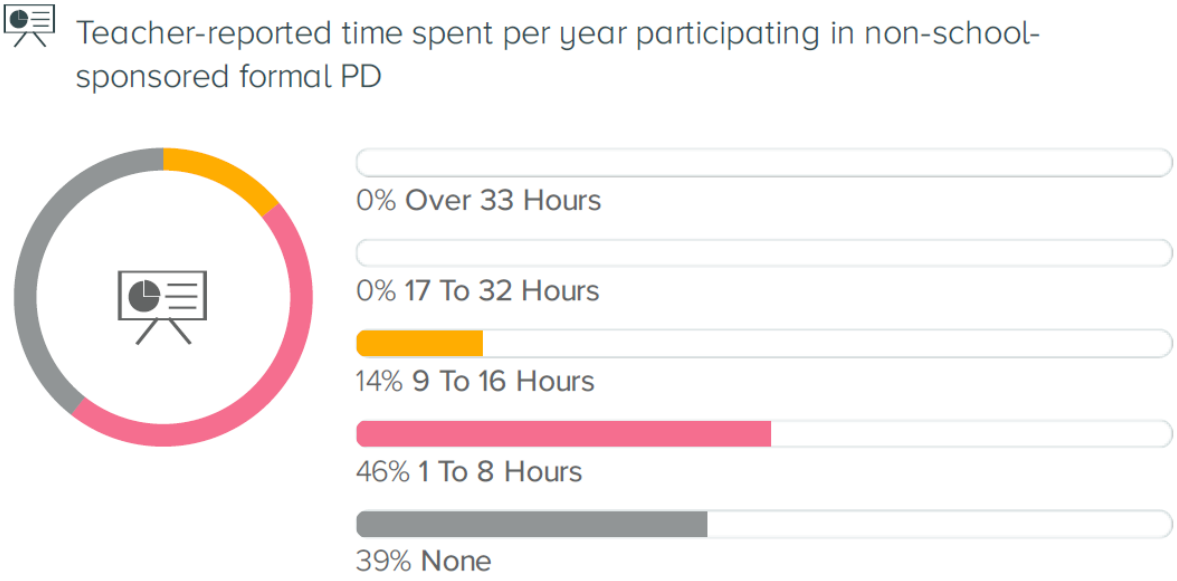


Brunswick Junior High Data



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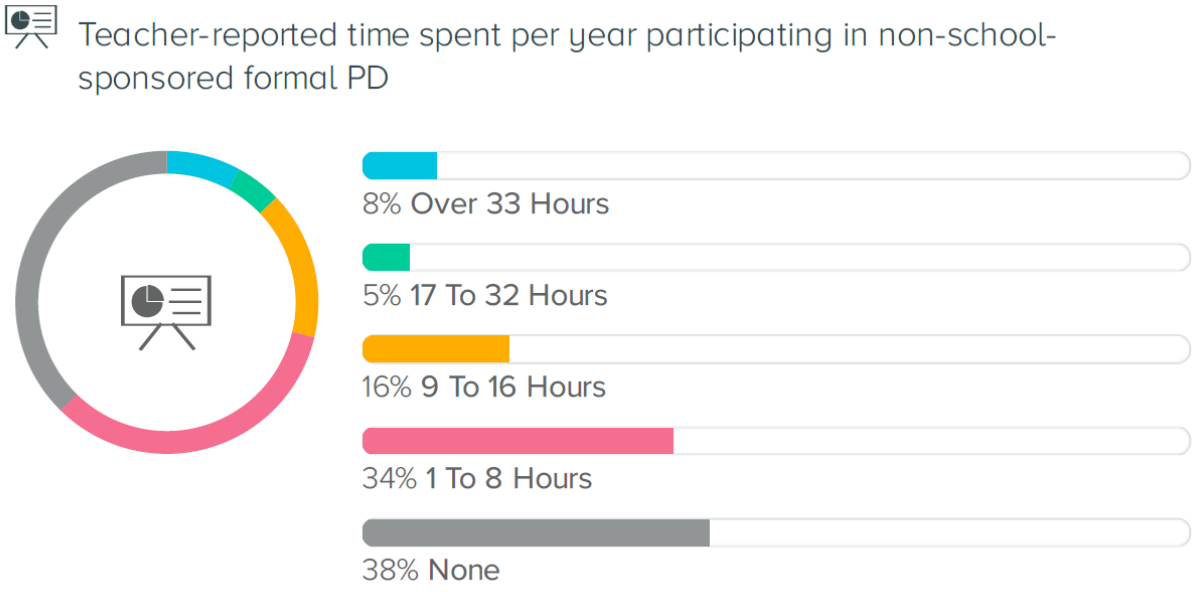

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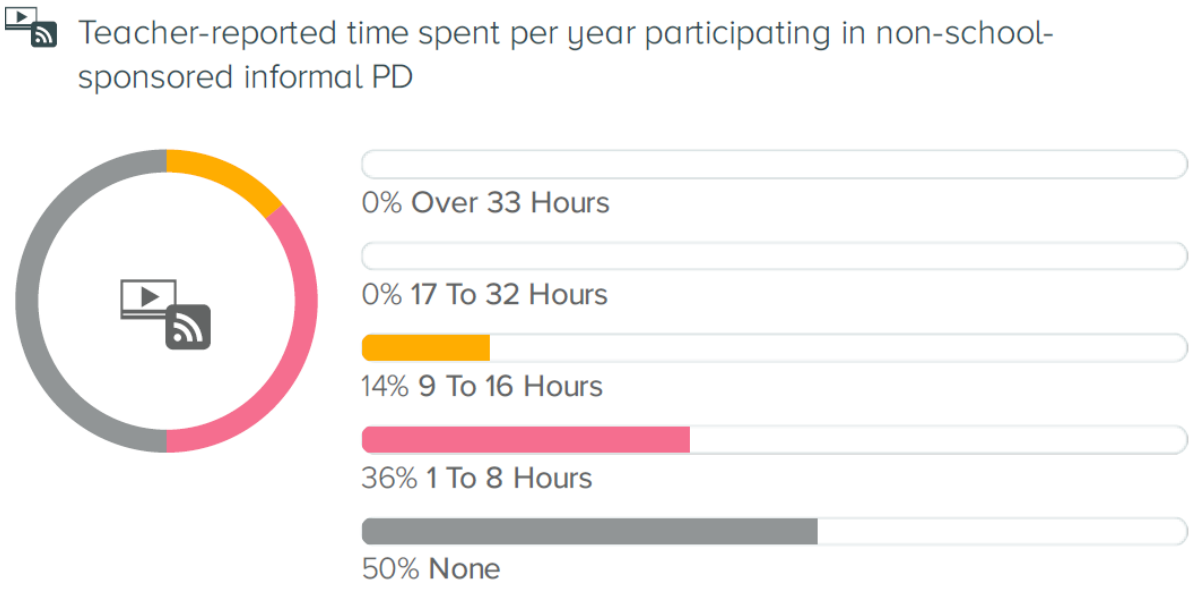

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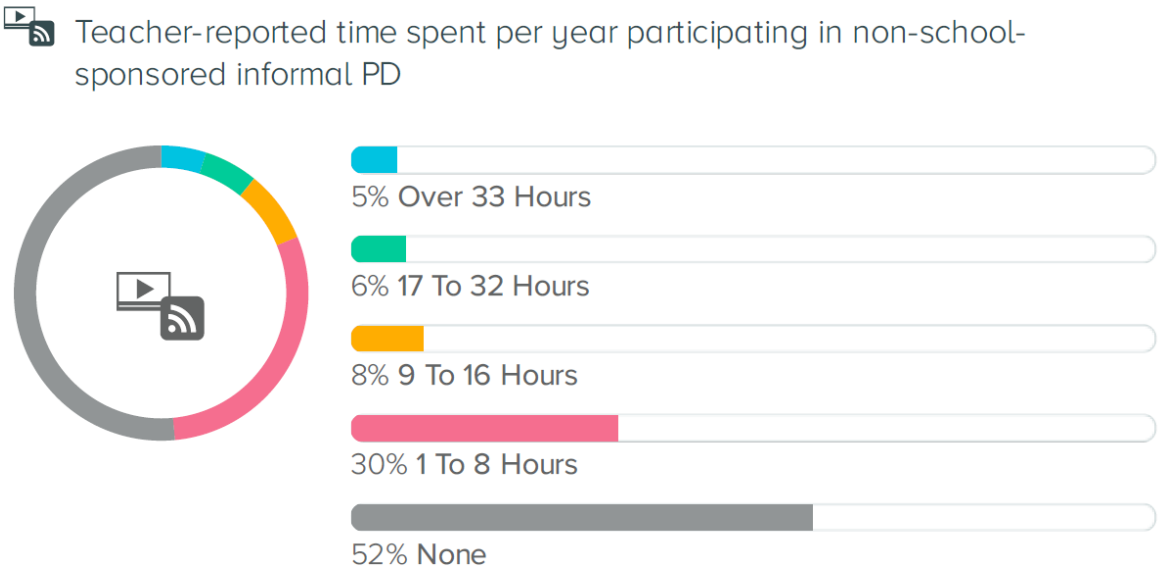


Implications:

41% of junior high teachers and 36% of high school teachers responded that technology use is rarely discussed during department and/or grade-level team meetings. Given that technology and programs are constantly emerging and changing, along with the requirement for curricular technology integration, the data reflects a need for technology use to be a regular agenda item for all leadership meetings.

The data shows that on average, the majority of teachers (BJHS 64%, BHS 50%) only spend between 1 and 8 hours per year in school sponsored professional development sessions related to technology. Ironically, these percentages are in direct conflict with percentage results in Section 1V where 48% of junior high teachers and 28% of high school teachers indicate a desire to learn more about "effective technology use for teaching and learning". There is no data available to determine why this discrepancy exists and why most staff only spend a maximum of 8 hours in school sponsored sessions.

The above findings are consistent with teachers devoting only 1 to 8 hours per year to non-school formal professional development (BJHS 46%, BHS 34%) and also to time spent on non-school informal professional development, where 36% of junior high teachers and 30% of high school teachers spend a maximum of 8 hrs per year.

The data also reflects a seriously high percentage of teachers who spend no time at all on any type of professional development related to technology use.

Possible reasons for the above responses include:

- School sponsored professional development opportunities for technology use are very limited in number and scope.
- District sponsored professional development opportunities for technology use are very limited in number and scope.
- Limited funds are available to attend workshops or conferences on the topic.
- Technology use is not a priority district or school goal.
- Lack of district or school administrator commitment to providing time for professional development on the topic.
- Lack of desire by teachers to extend their knowledge, keeping in mind that this would be in direct conflict with the expressed desire by teachers to enhance their knowledge (Section 1V B).
- Teachers responding in the above percentage ranges are already competent users of technology and do not feel the need to further their knowledge.
- Lack of personal time.

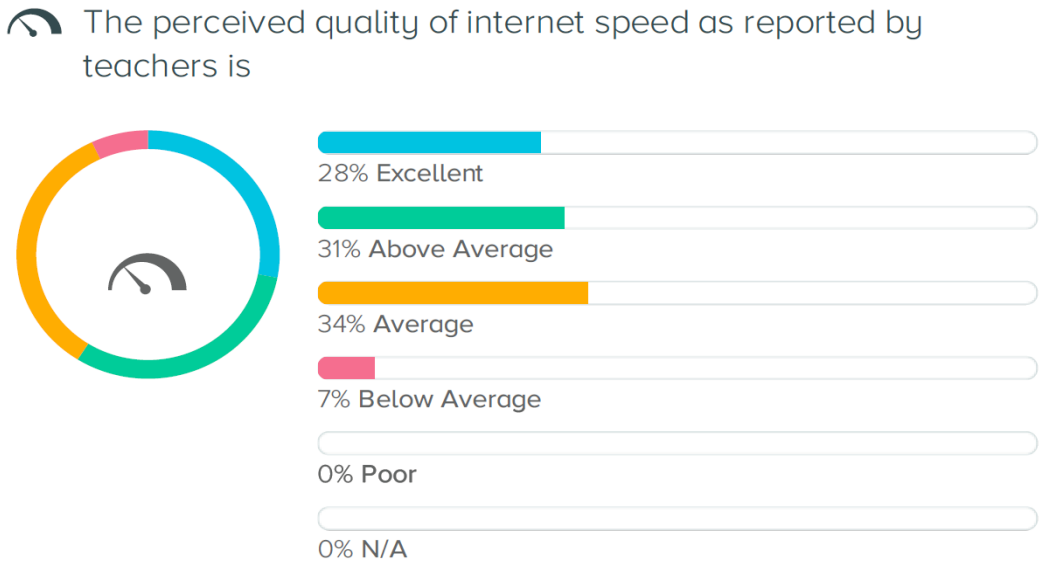
Further research is needed to determine why such a large percentage spends less than 8 hours on professional development related to technology use. In addition, a commitment to increasing time, sessions and funds to using technology needs to occur at all levels to encourage teachers to enhance their knowledge of technology use.

Interventions and Next Steps	Person/Position Responsible	Timeline
(Timing - Monthly, quarterly, etc) PD offerings based on administration and teacher requests	Technology Integrators / MLTI Lead Teacher Should Administration be responsible?	Ongoing
Budgetary planning for Summer Technology PD workshops	Assistant Superintendent	Annually by January?
Source free Technology development when available - ACTEM, Free PD, MLTI Tech Integrators, etc.	Technology Integrators and Teachers	Ongoing
Integrate technology into content-area professional development	Integrators and other staff responsible for staff development	Ongoing
Develop and implement a new reporting system	Assistant Superintendent, principals, technology integrators, lead teachers	Test by Spring 2018

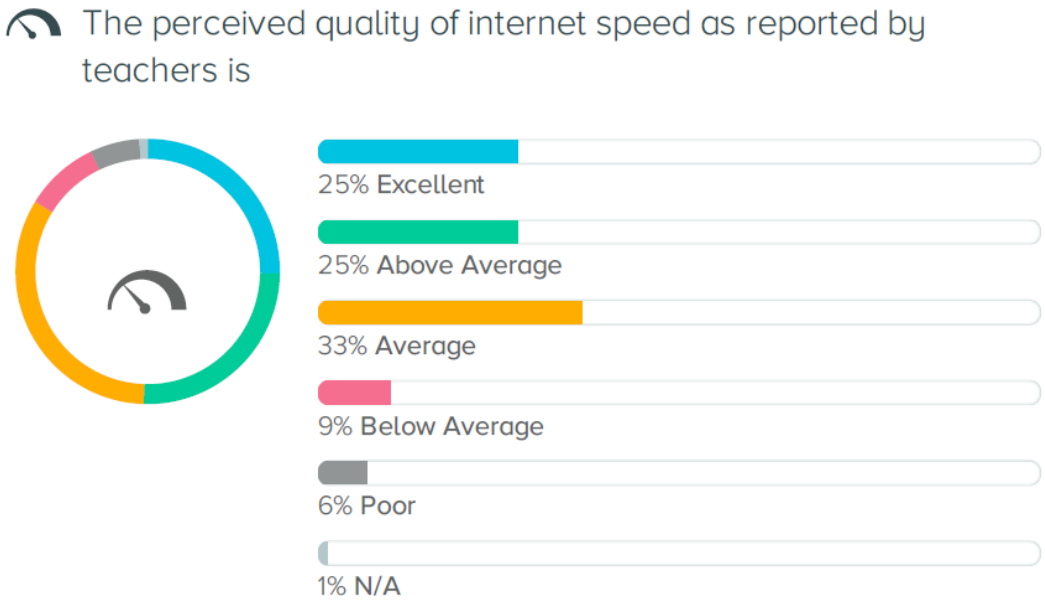
Section IV: District Learning Technology Data and Action Plan:

Section IV, Part D: Learning-Focused Access
Results of the Data

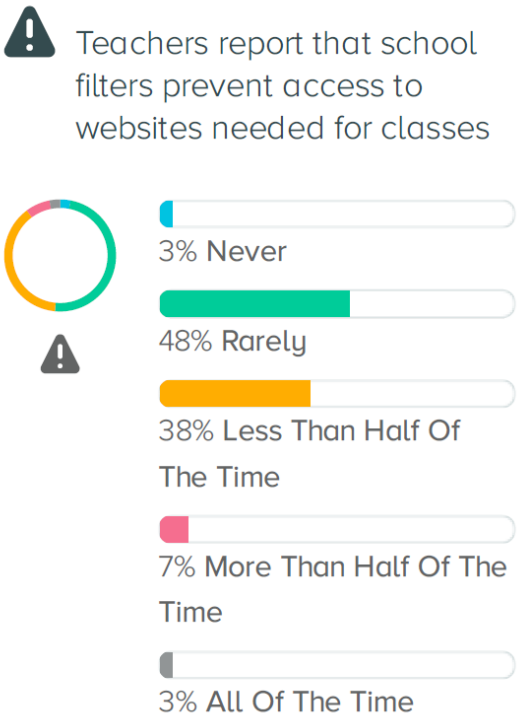
Brunswick Junior High Data

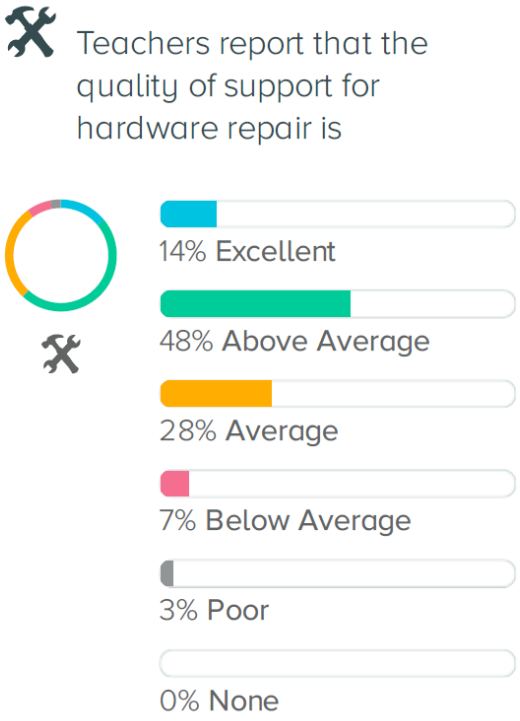


Brunswick High School Data

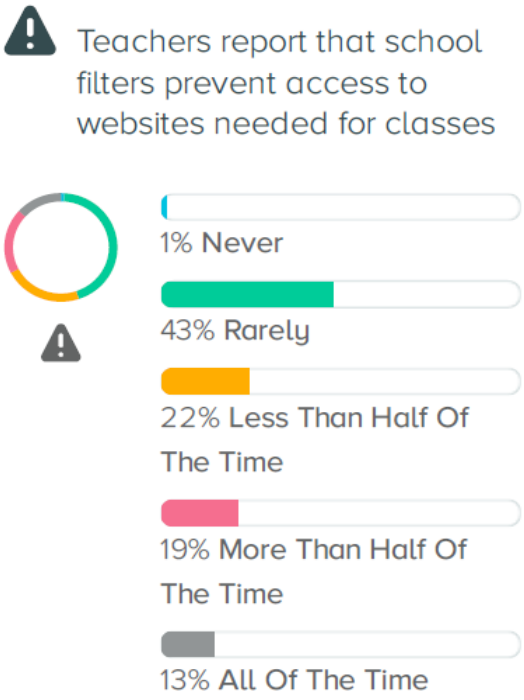


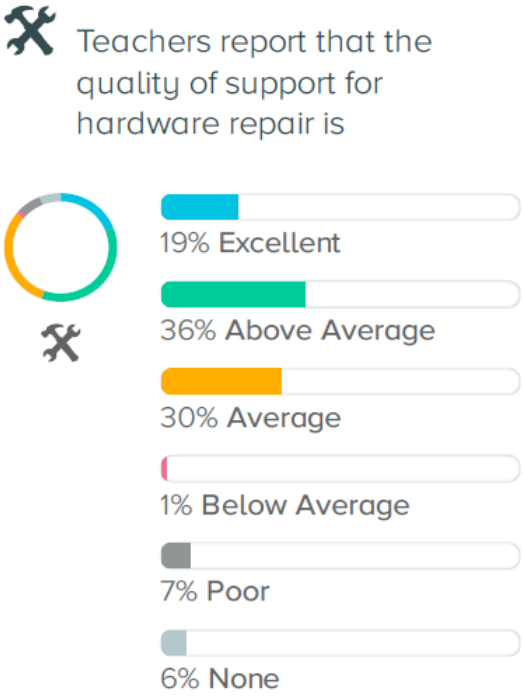
Brunswick Junior High





Brunswick High School





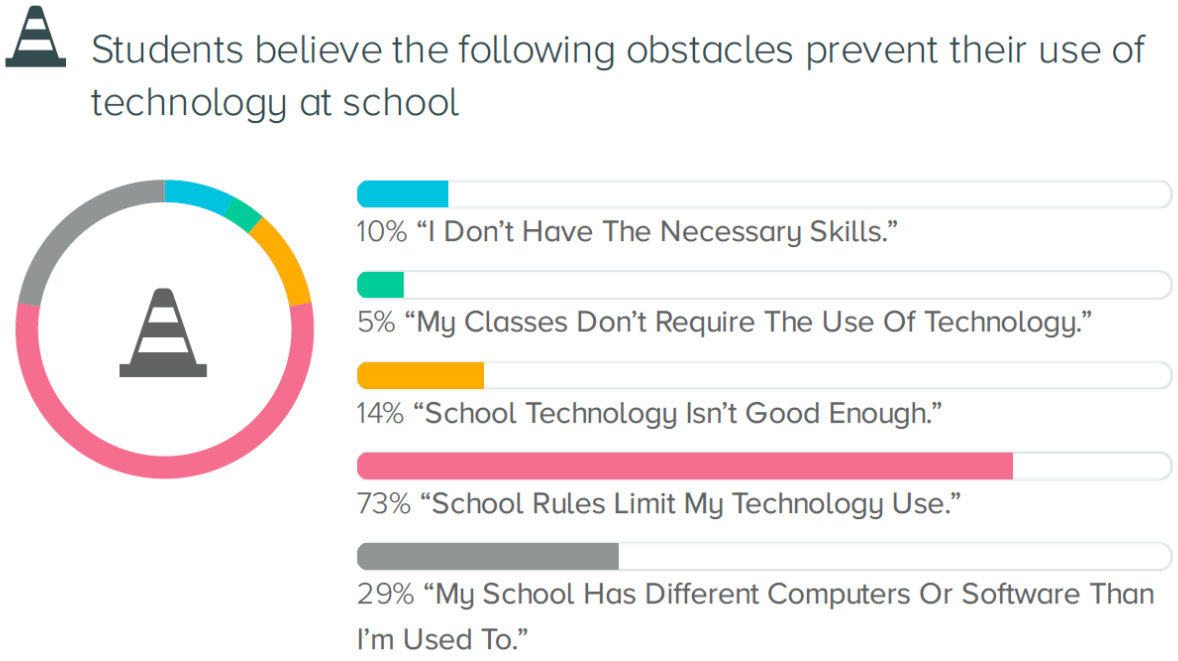
Brunswick Junior High

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

Brunswick High School

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

Brunswick Junior High



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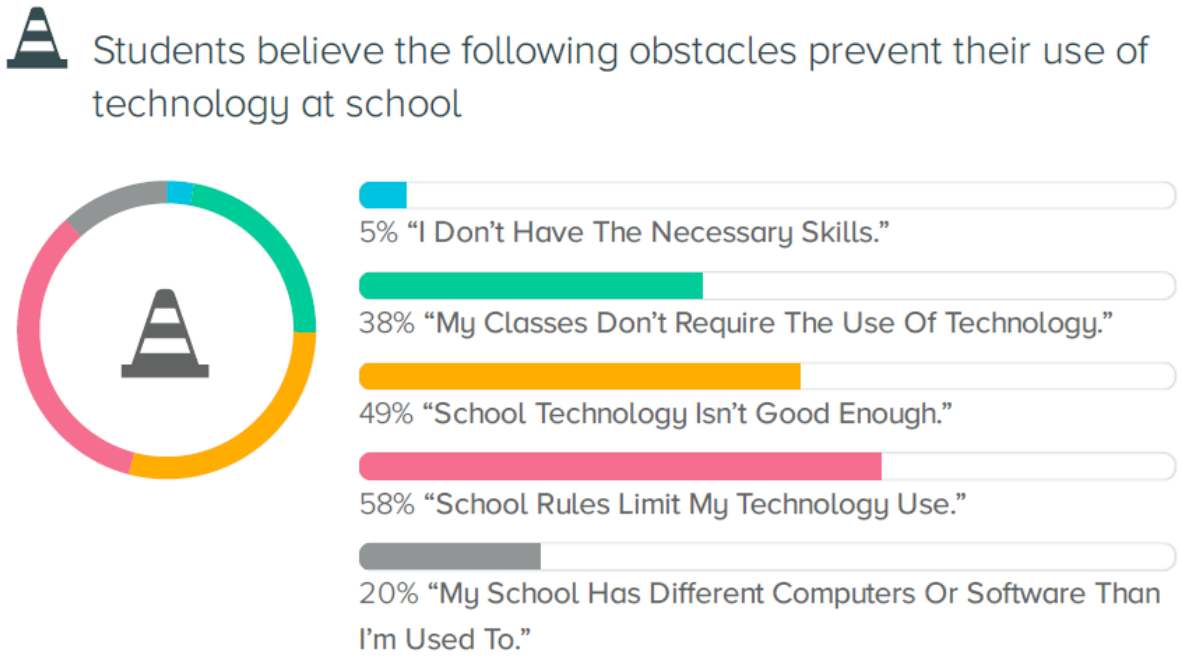

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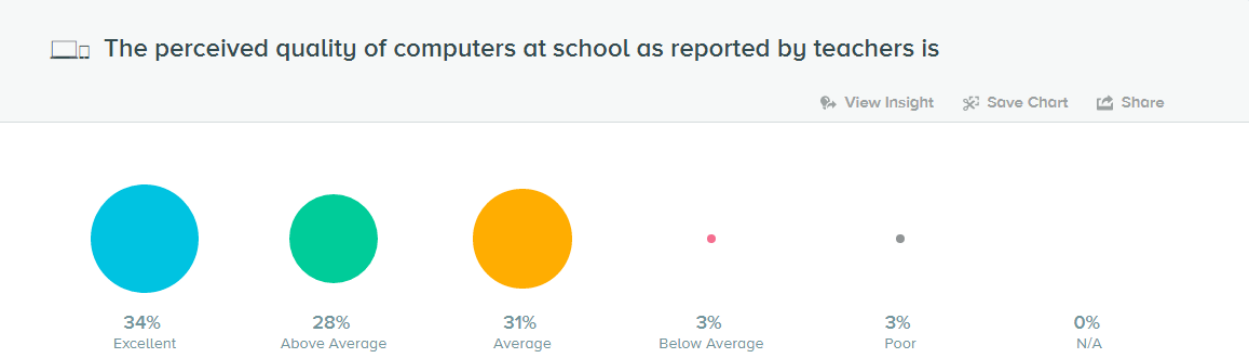

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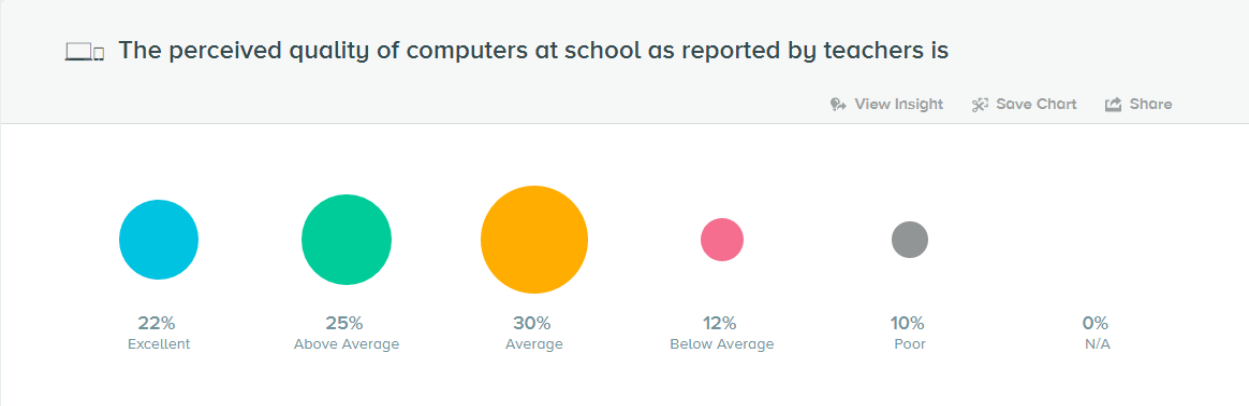
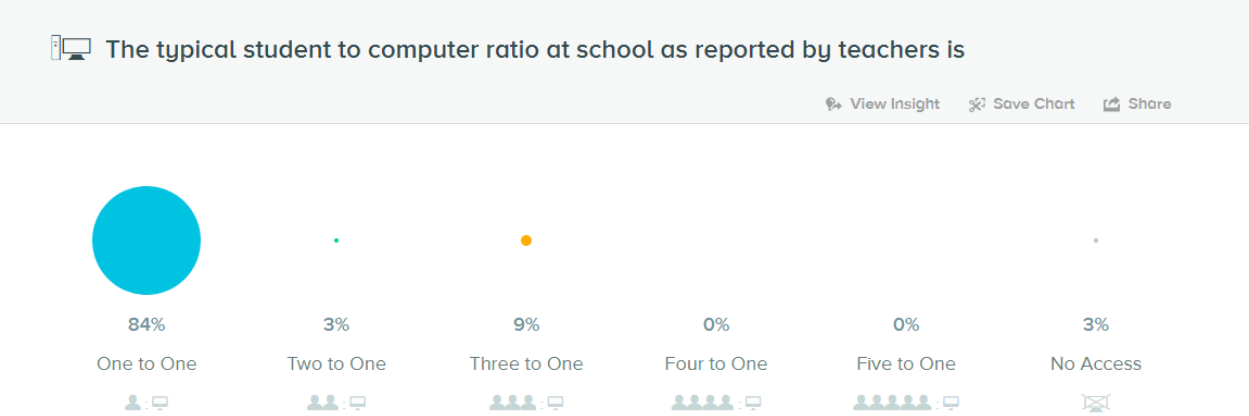


Brunswick Junior High



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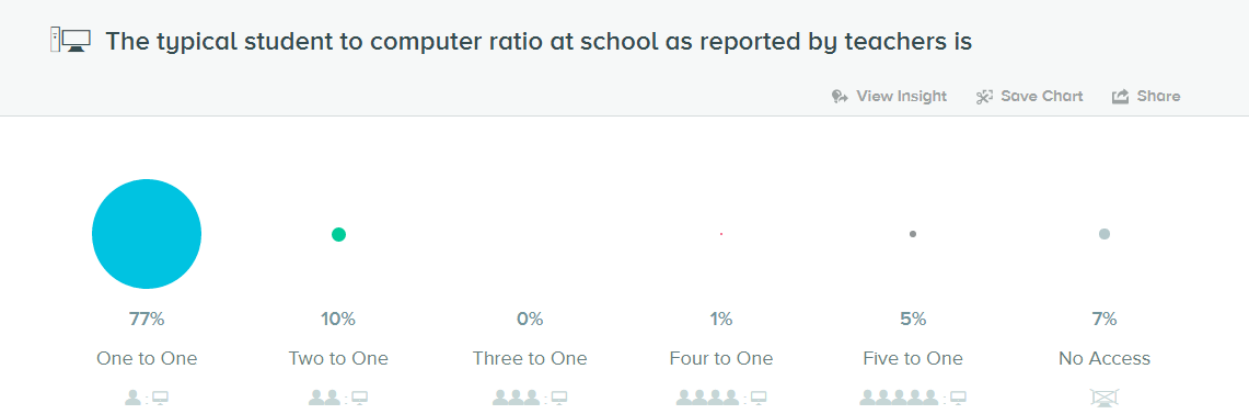

Implications:

Internet

- Internet connection speed does not appear to be a factor in discouraging technology use. The data reflects that speed is perceived as adequate to excellent by a wide margin in both schools. . Reaction to internet speed would likely receive an even higher rating if this survey is retaken, since at the time of the survey, high school teachers were using older computers which have since been updated.

Content Filtering

- Preventing access to desired web resources due to content filtering grows from a small 10% who report it as a problem at the Junior High to a significantly larger

32% at the High School. Expanding availability of web resources at the high school would likely involve changing some district policies and rules. This would need to be investigated and then approved by the School Board. Access prevention might also be a curricular integration issue where other acceptable resources exists, but simply need to be identified. In addition, students or teachers attempting to link to certain YouTube sites and/or AppleTV, which has strict licensing, downloading and copyright policies, may be a factor in why filters are perceived as preventing access. We need to educate students and teachers about content filters, YouTube and Apple TV issues to provide a better understanding of why access to some sites are blocked.

Hardware Repair Support

- The data reflects that the quality of support for hardware repair is above average and therefore is not a deterrent to using technology. However, given the increasing demands on technology staff due to the constantly changing environment and the increase in the number of computers and other technology hardware over the past few years, it would be beneficial to monitor demands and timeliness of responses to repair issues, to determine whether there is adequate staff to meet the increasing demands.

Student Assistant Groups

- Membership in student groups that provide technology support in both schools is low, particularly at the high school. Determining whether there are benefits to establishing student technology assistants would be the first course of action in addressing this issue. Training, supervision, time constraints, schedules, and other factors might account for the low response on this question. However, we need to be cognizant of the fact that leadership by example can be a powerful means of encouraging others to be involved, and establishing a group of student technology assistants to work with their peers might encourage other students to be more involved. This would need to be considered in determining the direction we should pursue. Implementing such a program would also align nicely with STEAM and STEM initiatives. Service Learning Credits could be provided for the student assistants in grades 8 to 12.

Obstacles to Technology Use

- This question is a multi-answer question that supplies 5 different possibilities that focus on obstacles for using technology. The data indicates that:
  - Lack of skills for using technology is not an issue in either school with 10% or less indicating lack of skills as a factor.
  - The majority of classes at the junior high require technology use with only 5% stating otherwise. 38% of high school students cite this as an obstacle. This could be a reflection of course type or lack of teacher knowledge in curricular integration and could be rectified with professional development and allowing time to experiment with using technology. Note that increasing professional development is addressed in another section of this plan.

- 14% of JH students and 49% of HS students respond that the “technology is not good enough”. We need to determine why this perception exists. Is there a need for equipment updating, or are we not using the types of technology that students like to use (e.g. phones)?
- Students in both schools strongly believe that rules limit technology use. The percentage is significantly higher at the junior high level (73%).We need to determine if and how rules limit technology use, or whether this is a perception resulting from students not being able to access sites that are personally appealing, unreliable, or inappropriate. If this proves to be a legitimate concern, we need to resolve the problem.
- Between 20 (HS) and 29 (JH) percent of students note that using particular computer types and software is an issue. The district provides and educates on both computer types. It is possible that confusion arises from the fact that students in K-6 use PCs, then in 7th and 8th (1:1) they use Macs, followed by high school where access is primarily PCs. The home computer type may also be an issue with students having to switch from one platform to another between home and school. Unfortunately there is no data to determine home use as a factor in this response.

Quality of Computers

- Perceived “quality of computers” by high school teachers is approximately four times greater for “below average” to “poor”, than at the junior high. This may be the result of a choice teachers made regarding the type of computer (MAC or PC) each teacher selected when given the choice at the high school level. It is possible that this result would be more positive if the survey is repeated, given the time lapse to become more familiar with the platforms individuals chose and also since equipment has been updated.

Interventions and Next Steps	**Person/Position Responsible**	**Timeline**
Repeat the BrightBytes survey to compare data findings with the last survey and share results with administrators, School Technology Committees, staff and student leaders. Analyze results, prioritize needs and propose next steps.	District Technology Committee Technology Support Specialists Technology Integrator School Technology Committees Teachers Student Leaders	Spring 2018 or as dictated by the State of Maine

Investigate whether there is a need to expand website content access, analyze and communicate findings and act accordingly.	District Technology Committee Technology Support Specialists Administrators School Technology Committees Teachers School Board	2017-2018
Educate staff and students on web content accessibility including AppleTV, YouTube, Licenses and copyright and how these relate to filters.	Technology Integrator Technology Support Specialists	2017-2018
Monitor demand for hardware support to determine whether there is adequate staff to meet increasing demands and use findings for budget purposes if the findings dictate the need.	Director of Technology Integration Technology Support Specialists	2017 & Ongoing
Research whether there is a benefit to establishing student technology assistant groups.	Building Technology Teams	Fall 2017- Spring 2018
If results are positive from the research above, establish student technology assistant groups in all schools and provide Service Learning credits for students in grades 8 -12.	Administrators Building Technology Teams Service Learning Coordinator Technology Integrator Technology Support Specialists	Fall 2018 & Ongoing
Write a grant to support the Student Technology Assistant initiative if	Building Technology Teams	Fall 2018

implemented.		
Identify and use peer technology leaders (staff and students) to support those who may not use or know how to use technology in the classroom.	Administrators Teacher Volunteers Student Volunteers	2017-2018
Fund an additional Technology Integrator position to provide direct support to teachers wishing to make more effective use of technology.	Administrators School Board	Budget 2018-2019
Require technology exploration and allow time (specifically set aside) for teachers to explore how technologies can be integrated with curricula.	Administrators	2017-18 & Ongoing
Given the perception by students that our technology is “not good enough”, survey students to determine reasons for this perception and to determine the types of technology they would recommend using in our schools.	District Technology Committee Building Technology Committees Student Leaders	Spring 2018
Inform and reinforce through sessions with all students current school rules, policies, guidelines, and the reasons for limitations related to technology use in Brunswick schools.	District Technology Team Building Technology Teams Technology Support Specialists Technology Integrator Teaching Staff	September 2017 & annually at the start of each school year.
Survey students to determine what rules they perceive as limiting technology use.	District Technology Committee	Fall 2017
Review the District policies on Technology Use to determine whether rules are inhibiting technology use and develop recommendations for policy changes if applicable.	District Technology Committee District and School Administrators Student Leaders	Spring & Fall 2018

	School Board	
Review the perceived quality of computers per the feedback from the new BrightBytes survey and act on the results as needed.	District Technology Committee	After the next BrightBytes survey.
Continue publishing a staff newsletter on district technology integration and other topics related to technology.	Director of Technology Integration	2017 & Ongoing

Section V: Responsible Use:

The following documents can be found on the district web site at:

http://www.brunswick.k12.me.us/services/technology-department/technology-policies/

Related to Student Computer Technology and Website Use

- ***(*required documentation for students)***

- *IJND: Electronic Presence Policy (6/8/11)*
- *IJND-R: Electronic Presence Guidelines (12/14/11)*
- *IJND-E1: Parent/Guardian Agreement to Publish Student*
- *Information/Photos/Student Work on the Brunswick School Department*
- *Electronic Presence and in Newspapers-Grades K-5(12/14/11)**
- *IJND-E2: Parent/Guardian Agreement to Publish Student*
- *Information/Photos/Student Work on the Brunswick School Department*
- *Electronic Presence and in Newspapers-Grades 6-8 (12/14/11)**
- *IJND-E3: Parent/Guardian Agreement to Publish Student*
- *Information/Photos/Student Work on the Brunswick School Department*
- *Electronic Presence and in Newspapers-Grades 9-12 (12/14/11)**
- *IJNDB: Student Computer & Internet Use & On-Line Safety (8/8/12)*
- *IJNDB-R: Student Computer & Internet Use-Regulations (4/12/00)*
- *IJNDBA-E: Student Computer & Internet Use-Permission Form (9/2004)*
- *IJNDBA: Laptop Computer Use (10/9/02)*
- *IJNDBA-R: Laptop Computer Use-Regulations (10/9/02)*
- *IJNDBA-E: Student Laptop Computer Home Use-Permission Form – permission form (2004)*
- *IJNDC-E: Agreement to Publish Student Information on the Brunswick School Department Website (in draft)*

Policies Related to Employee Computer Technology and Website Use
(*required documentation for staff)

- *GCSA: Employee Computer and Internet Use (4/12/00)**
- *GCSA-R: Regulations for Employee Computer and Internet Use (6/14/00)**
- *GCSA-E: Employee Computer and Internet Use-Memo/Acknowledgement (no date)**

What is the district doing to teach students digital citizenship and safe and appropriate use of technology by grade?

Brunswick Technology Benchmarks

Technology Knowledge and Skills Requirements

I = Introduction R = Reinforced M = Mastered or Already Mastered

K	1	2	3	4	5	6	7	8	9	10	11	12	
Use of computers, hardware and software applications													
I/R	M												Know how to log in and log off with a username and password.
I/R	M												Know when and how to use the Ctrl, Alt ("V – fingers") and Delete keys (PC) and Control, Option, Command keys (MAC).
I/R	R	M											Know how to open and exit a program.
		I	R	R	M								Know how to cut, copy and paste.
I/R	M												Know how to double click - click once and use enter key for modification if needed
I/R	M												Know how to point and click.
I/R	M												Know how to click and drag.
I/R	M												Know how to locate and use the "Tab" key to navigate a login and move through field boxes.
I	R	R	R	M									Know how to save work to student folders.
	I	R	R	M									Know how to retrieve work from student folders and retrieve work from programs (PIXIE, Word etc.).
			I	R	M								Know how to choose "Page Setup" and the difference between landscape and portrait setups.
			I	R	R	M							Know how to use two programs simultaneously.
			I	R	M								Know how to create and name folders.
	I	I	R	R	M								Know how to save work.
			I	R	R	R	M						Know how to rename files and folders.
			I	R	R	R	M						Know the difference between "save" and "save as".
			I	R	R	M							Know how to edit (undo) and use undo button.
	I	R	R	R	R	M							Know how to retrieve work from student folders.
		I	R	R	R	R	M						Know how to select appropriate printers.
						I	R	M					Know how to add printers from the BSD network.
	I	R	M										Know some basic computer hardware terms (Monitor, Keyboard, Mouse, Desktop vs Laptop)
I	R	R	R	R	M								Know how to use equipment efficiently, appropriately and productively.

I	R	R	M										Know how to leave equipment ready for the next user.
						I	R	R	M				Know how to save data and images on disks, CDs, DVDs, flash-drives, and networks.
						I	R	R	M				Know how to use a flash drive to store and transport data.
						I	R	R	M				Know where and how to locate appropriate network and cloud (Google Classroom is an example) storage
	I	R	R	R	M								Know how to use a computer to print files located on hard drives, defined user spaces, or flash-drives.
I	R	M											Know how to log onto the BSD network.

Technology Knowledge and Skills Requirements													
I = Introduction R = Reinforced M = Mastered or Already Mastered													
K	1	2	3	4	5	6	7	8	9	10	11	12	
Keyboarding													
						I	R	R	R	R	R	R	Keyboarding skills.
I	R	M											Know the location of keys.
I	R	R	M										Know when to use the "Enter" key to open a program or to make a hard return.
	I	R	R	R	R	R	R	R	R	R	R	R	Know left and right hand placements (home row) on the keyboard.
I	R	R	M										Know where the space bar, "Enter", and backspace keys (home row) are located on the keyboard.
I	R	M											Know how to use the "Shift" key to make capital letters.
	I	R	M										Know how to use arrow keys to navigate within a document
I	R	M											Know how to use "Caps Lock" in place of the shift key for capitals
	I	R	R	M									Know how to sit correctly at a computer (posture).
I	I	R	R	M									Know how to create graphic products using graphic tools (Pixie, Kidspiration, etc.)
				I	R	R	M						Know how to use a camera to create a graphic.
			I	R	R	M							Know how to Resize graphics to fit documents
						I	R	M					Know different graphic file extensions (JPEG, TIFF, PSD, MOV, WMV,)
I/R	M												Know the location of On/Off buttons.
I/R	M												Know how to use speakers and headphones, where to plug them in, and how to manipulate sound levels.
I/R	M												Know how to identify a monitor.
I/R	M												Know how to identify a CPU.

I/R	M												Know how to identify a keyboard and understand that it is an input device that communicates with the computer.
I/R	M												Know how to use a mouse, scroll wheel, and left and right buttons.
		I	R	M									Know that work saved on the district network can be accessed on a different computer
I	R	R	R	M									Know how to format text (style, size, font, color).
I	R	R	R	M									Know how to use text boxes (in-line-text, wrap text).
	I	I	R	M									Know spacing requirements between words and sentences (1 space between words and sentences)
			I	R	M								Know how to make columns.
			I	R	M								Know how to change margins.
		I	R	R	M								Know how to set up a page in landscape or portrait orientation.
		I	R	R	M								Know how to align text (left, center, right)
			I	R	M								Know how to use spell checker.
			I	R	M								Know how to use tab to indent (Using Tab)
			I	R	R	M							Know how to use line spacing (single, double).
			I	R	R	M							Know how to import a graphic object.
						I	R	M					Know how to bookmark (add to favorites) Internet sites.
						I	R	M					Know how to organize and arrange bookmarks / favorites.
						I	R	R	R	R	R	R	Know what file extensions to use when saving documents, graphics etc. (Examples PDF, JPG,)
						I	R	R	R	R	R	M	Know how to insert headers, footers and page numbers
						R	R	M					Know how to resize and save graphics.
						I	R	R	R	R	R	R	Know how to choose an appropriate file size and type for graphics to be used in presentations. (Example TIFF, Bit Map, JPG)
					I	I	R	R	R	R	R	M	Know how to insert hyperlinks into documents.
	I	R	R	R	R	R	R	R	M				Know how to use the "Enter Key" (Create a new paragraph, add bullets or numbering and adjust spacing on a document)
					I	R	R	M					Know how to create charts and graphs.
					I	R	R	M					Know how to use charts and graphs to present information.
I	R	R	M										Know how to use the "undo" button.
I	R	R	M										Know how to use the "select" tool.
			I	R	R	R	R	R	R	R	R	R	Know how to use a storyboard (or outline) to plan a presentation.
			I	R	R	R	R	R	R	R	R	R	Know how to use templates to present information.
			I	R	R	R	R	R	R	R	R	R	Know how to combine text and graphics to create presentations. (Example add text to a shape object)
						I	R	R	R	R	R	R	Be able to use a variety of audiovisual and

													computer hardware to present presentations.
						I	R	R	R	R	R	R	Be able to use a digital camera, organize digital content, and insert images into documents.
			I	R	R	R	R	R	R	R	R	R	Know how to use a storyboard (or outline) to plan a presentation.

Technology Knowledge and Skills Requirements													
I = Introduction R = Reinforced M = Mastered or Already Mastered													
K	1	2	3	4	5	6	7	8	9	10	11	12	
Responsible and ethical use of technology													
I	R/M												Know how to appropriately ask for help
		I	R	R	R	R	R	R	R	R	R	R	Know the importance of respecting the work and network accounts of others.
			I	R	R	R	R	R	R	R	R	R	Know how to comply with the copyright and plagiarism laws.
						I	R	R	R	R	R	R	Know the importance of etiquette when communicating in the electronic environment.
						I	R	R	R	R	R	R	Know the dangers, ramifications, and potential consequences of cyber bullying.
						I	R	R	R	R	R	R	Know the meaning of ethical behavior.
						I	R	R	R	R	R	R	Know the meaning of cyber bullying.
				I	R	R	R	M					Be familiar with the BSD Computer Acceptable Use Policy.

Technology Knowledge and Skills Requirements													
I = Introduction R = Reinforced M = Mastered or Already Mastered													
K	1	2	3	4	5	6	7	8	9	10	11	12	
Effective use of information technology													
						I	R	R	M				Know the meaning of the terms "single-user, multi-user, and site licenses.
						I	R	M					Know the meanings of the term "local access" and "remote access".
						I	R	M					Know the meaning of the term "database".
						I	R	M					Know the meaning of the term "software".
						I	R	M					Know the meanings of multi-platform and cross platform (Mac and Windows)
						I	R	R	M				Know what software is available on the district computers and mobile devices.
						I	R	R	M				Know what databases (subscription & other) are available for use on computers.
				I	R	R	R	M					Know the meaning of the term "information technology".
					I	R	R	M					Know the difference between the terms fact and fiction

						I	R	M					Know the meaning of the term "information-technology literacy".
						I	R	M					Know the meaning of the term "web browser".
						I	R	R					Know the meaning and use of "controlled vocabulary".
						I	R	M					Know the meaning of "bookmark" (add to favorites).
						I	R	R	R	R	R	R	Know that copyright laws apply to all sources of information.
						I	R	R	R	R	R	R	Know what constitutes copyright infringement.
						I	R	R	R	M			Know what constitutes “fair use”.
						I	R	M					Know what constitutes plagiarism.
I	R	R	M										Know how to access Internet to find teacher provided links
				I	R	R	R	M					Know where to locate and how to use the online-library catalog.
				I	R	R	R	R	M				Know how to define a research problem.
				R	R	R	R	R	M				Know how to select appropriate resources to answer questions.
			I	M	R	R	R	R	M				Know how to use navigation buttons to move within sources.
			I	R	R	R	R	R	M				Know how to gather and organize information using a graphic organizer.
			I	R	R	R	R	R	R	R	M		Know how to cite sources for various types of information appropriately
						I	R	M					Know how to organize, arrange, and add bookmarks / favorites.
						I	R	M					Know what constitutes a primary source.
						I	R	M					Be able to access primary sources on the Internet.
						I	R	M					Know what constitutes a secondary source.
						I	R	M					Know the meaning of "natural language" and how to use it in an electronic environment.
						I	R	R	M				Know the difference between full text, abstract, and bibliographic databases.
			I	R	R	R	R	R	M				Know how to locate information from a database
						I	R	R	R	R	R	R	Know how to develop a simple, flat-file database.
						R	R	M					Know that information is available from a variety of electronic sources.
						R	R	M					Know how to use brainstorming, webbing, or other categorizing methods to determine the extent of a research problem.
						I	R	M					Know the importance of, and be able to develop a relevant search strategy before conducting electronic research.
						I	R	M					Know how to Identify and use relevant print sources along with electronic sources of information.
						R	R	M					Know how to Identify keywords related to the research questions and use these for electronic searching.
						R	R	M					Know how to categorize information during

													planning, searching, and note taking processes.
						I	R	R	M				Know the difference between a subject search and a keyword search.
						R	R	M					Know how to perform author/title /subject/keyword searches on an automated library catalog.
						I	R	M					Know how to access other electronic library catalogs to locate materials.
						I	R	R	R	M			Know the difference between "like", "broader", "narrower" search terms.
						I	R	R	M				Know how to develop a Venn diagram to prepare for a Boolean search.
						I	R	R	M				Know a variety of search term vocabularies.
						I	R	M					Know how to perform a simple Internet search.
						I	R	M					Know how to do a natural language search on the Internet.
							I	R	R	M			Know how to perform a Boolean search on the Internet and applicable databases. Boolean Operators: AND, NOT, OR.
							I	R	R	R	R	R	Know how to use truncation and other operators such as "*", "near", "adj", etc. with relevant electronic works.
						I	R	M					Know how to use a variety of search engines.
							I	R	R	M			Know how to use a variety of electronic directories.
				I	R	R	R	M					Know how to use an electronic encyclopedia.
						I	R	R	M				Know the difference between full text, abstract, and bibliographic databases.
						I	R	R	M				Know how to use an electronic index, including a full-text periodical index.
						I	R	R	M				Know how to read, write, and interpret an Internet address.
						I	I	R	R	R	R	R	Know how to determine the origin of a website.
						I	R	R	R	R	R	R	Know how to evaluate a web site.
						I	R	R	R	R	R	R	Know how to determine the authority of a website.
						I	R	R	R	R	R	M	Know how to highlight, cut, paste, download, and save information and graphics when copyright clearance is granted.
						I	R	M					Know how to bookmark (add to favorites) an Internet site.
						I	R	M					Know the importance of a copyright date as it relates to currency and content evaluation.
						I	R	R	R	M			Know that print or electronic information is not always accurate, current, unbiased, valid, and reliable.
						I	R	R	R	M			Know the importance of verifying Internet information particularly where no recognized authority is provided.
						I	R	R	R	M			Know how to evaluate electronic content for accuracy, relevancy, copyright date, intent, bias, stereotype, and audience.
						I	R	R	R	M			Know how to identify the contributor's purpose.
						I	R	R	R	R	R	M	Know how to identify the contributor's point of

													view.
						I	R	R	R	M			Know how to identify propaganda.
							I	R	R	R	R	M	Know the importance of, and be able to verify conflicting information obtained from electronic sources, by using appropriate alternate sources.
						I	R	M					Know what constitutes a primary source.
						I	R	M					Know what constitutes a secondary source.
						I	R	R	R	M			Know what constitutes copyright infringement.
						I	R	R	R	M			Know what constitutes “fair use”.
						R	R	M					Know what constitutes plagiarism.
						I	R	R	R	M			Know how to evaluate electronic content for accuracy, relevancy, copyright date, intent, bias, stereotype, and audience.
					I	R	R	M					Know how to identify the components of an electronic catalog record, (call number, author, title, copyright date, summary, place of publication and publisher) and be able to use the information for bibliographic purposes.
				I	I	R	R	M					Know how to determine whether a work is fact or fiction by viewing records posted on an on-line catalog.
						I	R	R	R	R	R	M	Know how to use a standard bibliographic format to cite information, graphics, interviews, other media, and email obtained from the Internet.
						I	R	R	R	R	R	R	Know that copyright laws apply to all sources of information.
						I	R	R	R	R	R	R	Know what constitutes copyright infringement.
						I	R	R	R	R	R	M	Know how to correctly cite sources of information (Using appropriate format such as APA or MLA or Chicago style)

Section VI: Certifications:

By signing below, the superintendent is acknowledging the following:

- The information submitted in the Technology Access Survey is accurate
- Your Technology Plan has been approved by your school committee
- You are committing to work your plan (recognizing that plans do evolve over time)

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SAU MEDMS ID # & Name	Superintendent Email
Superintendent Signature	Date