

**Client:** Davis Middle School**General Information**

The school is comprised of gifted and students with disabilities and 504 plans. There are also a few ELL students within the team and are provided with two inclusion teachers as well as two paraprofessionals. The demographics of the students on our team are about seventy percent black, twenty-five percent white, and five percent Hispanic. Four academic classes consist of three general education social studies classes and one Program Challenge (PC) class which consists of students have tested into the gifted program.

**Results of Needs Assessment**

The first step taken in implementing the needs assessment was creating a well-thought and succinct survey to gauge an understanding of what area within technology needed any assistance or revamping. By researching various needs assessment surveys and determining the type of data that would be collected with a survey, the next step was to create the relevant questions related to technology. The survey used had twenty-two detailed questions asking fellow teachers their understanding of technology programs and uses performed within their instruction and classes. The survey was given to twenty-five colleagues that were all classroom teachers. Twenty-one surveys were received back and fully completed. The surveys were given to each teacher on a Monday and they were given until Friday of that same week, to complete.

The results of the survey varied in the responses of what was necessary to improve the technology integration at my school. Out of the twenty-one surveys received, nine teachers expressed needing more adequate instructional and professional development when it comes to sufficiently implementing technology within their classrooms. The second most frequently

mentioned reasons as to what the school is lacking regarding technology integration was regarding the equipment being used by students and staff being up to date. Many stated that although we are a one to one district, many of the students do not have properly working laptops and often have to wait several days for repairs which impedes on their educating. Two teachers also mentioned that it would be beneficial for teachers to have access to whatever applications they believed would help improve student instruction and allow for various forms of data collection.

In addition to the survey being given to classroom teachers, interviews were conducted with five different teachers in the classroom. These teachers varied in the amount of years of experience in the classroom as well as content area. Interview questions were formed to get a better understanding of each teacher's personal experience with technology and what they believed to be important while using technology. Each interview was scheduled one a day for a week with each teacher. The interview process took about thirty to forty minutes and was conducted over Microsoft teams to better accommodate everyone's busy schedule. Each interviewee has at least four years of teaching and has been teaching at General Ray Davis Middle School for at least two years.

The results of the interviews were astonishingly similar due to nearly all teachers stating that there was a major need of support with instructional technology in the classroom. Within our school, we have a Digital Learning Specialist (DLS) who helps teachers with professional development when it comes to integrating technology and troubleshooting technology application questions. Unfortunately, our DLS has to split his time among three schools and often is not available to answer questions and assist with technology inquiries that teachers have. Many of the teachers expressed a desire to learn more about how to use technology in their

classrooms and believed that admin should make this a requirement to further their pedagogical understanding.

### **Available Technology**

Currently our district is one to one which means that every single student receives a device that they are able to use during the school day and take home with them to complete homework. Ever since the pandemic began, we have partnered with internet companies to ensure that all students have access to internet at home. We have a DLS who focuses on software issues and instruction for our staff. There is also an Intel worker who focuses on hardware issue and repairs for students and staff. In a normal year, our school would DLS that was solely at our school and two Intel workers to help with student repairs.

Students and teachers log on an application called Classlink which has a list of available applications for instruction and assessments. Classlink has the ability to hold passwords so that students do not have to remember them when logging into the necessary applications. It is a way to centralize the apps used for students so they can have easier access to these platforms. The apps that many teachers use are provided by the district like Infinite Campus, ItsLearning, SchoolNet, DBQ online, USATest Prep, and many more. When a student is having issue with their laptop or have forgotten their laptop at home, each class is equipped with two desktops. In order for students to receive repairs for their broken devices, they notify their Homeroom teachers within our LMS, ItsLearning, and the teacher is able to put in a help technology ticket to let the Intel department know. Teachers are also able to use this platform for any device issues they may experience within their classroom or with their own district provided laptop. Each classroom has a projector and a projector screen to accompany.

**Stakeholders**

Of those that participated in the survey, six were Connections teachers, four were ELA teachers, four were math teachers, four taught science, and three taught social studies. It was extremely important to gather a variety of teachers in various grade levels to gain different perspectives regarding technology. Each teacher surveyed has a varied perspective on technology related to their department as well as their grade level that could help determine if there are any gaps within content areas and grade levels. For those that were interviewed, they were specifically selected due to their roles within the school. These people are often viewed as team players and have often times gone beyond their assigned subject matter and enjoy working with others. I would call them team players. The first interviewee is a male seventh-grade teacher who has been teaching for four years. The next is a female sixth grade social studies teacher who has taught for sixteen years. One of the interviewees is a sixth-grade inclusion teacher for ELA and has been teaching for ten years. Then there is a seventh-grade math teacher who has been teaching four years. Finally, there is our veteran teacher of eighth-grade ELA who is on her twenty-third-year teaching. Again, every single teacher chosen has some sort of leadership role within our school and interacts with various teachers. They were selected because they represent many teachers that they work with and could give an overall perspective on what areas technology integration could use improvement.

**Major Outcomes**

After conducting the survey with the twenty-one teachers, there were many aspects of technology that seemed to signify a need a for change. Roughly eighty-five percent were not able to physically identify the technology plan for our school. One-third of the staff was not familiar with the SAMR method when implementing instructional strategies using technology. About

sixty-two percent stated that implementing technology has no significant incentive from administration. Sixty-six percent would like to see professional development offered to staff members that are interested in improving their technology skills. Eighty-one percent of staff members believe that a stipend should be offered to improve the technology usage within classrooms. Seventy-six percent would like to see the opportunity for planning time to be used to improve their technology use in the classroom. When asked what areas could be improved with the current state of technology usage in the school, there were three primary areas revealed. The first area is that students lack the necessary updated laptops necessary to complete work. Next, teachers do not have access to consistent professional learning tailored to technology strategies to use in the classroom. Finally, teachers are limited to the applications that could help improve the instruction of students.

Once the video interviews with the five teachers were conducted, they seemed to agree with some of the areas that the other twenty-one teachers noted as being areas of concern. The major revelation after reviewing the data was that all five teachers feel as though they are equipped to use the technology tools that have been made available to them through the district. Eighty percent of those interviewed stated that they were proficient in Microsoft Office which is what is commonly used daily by all teachers within our school. The major area for growth for all teachers was having access to professional development. They stated that they do not have adequate access to the DLS or to training and this is an area that they believed the administration could help improve.

The reasoning behind these results seems to be due to not having enough time within the planning portion of the daily routine to incorporate learning opportunities with technology. Teachers are required to attend professional learning communities that are tailored to their

content area for three out of the five days a week. These meetings are tailored to content and development of lesson plans and analyzing data from common unit assessments. The process of completing these tasks can take the full three days which does not lend much time to review and learning new technology strategies. For the other two days, there are IEP and 504 meetings scheduled as well as parent-teacher conferences. Teachers are often in meetings their entire planning which also does not allow for time to grade assignments and provide adequate feedback to students when necessary. Technology strategy implementation is the least focus because there are other mandatory meetings teachers are required to attend.

### Priority Needs

Needs	Causes	Consequences	Difficulty to Correct (low medium, high)
Technology-focused Professional Development	Lack of planning Lack of access to DLS Lack of organized PD	Teachers will continue to lack growth in technology skills that are required to engage students academically	Medium
Ineffective Equipment /Repairs for Student devices	Lack of access to Intel	Students will continue to miss out on instruction because their devices do not work sufficiently to carry out their academic tasks.	High

### Action Plan

In this needs assessment, I discovered that my school needs Professional Development opportunities to enhance the skills and access to strategies for all academic teachers. In both the survey and interviews, it was overwhelmingly stated that there are not enough opportunities for teachers to improve and learn new skills that they can use technology with to enhance the learning environment. Many of the teachers that have used the current platforms available, have

taught themselves and admit to not having the full training with the programs they are familiar with. There are also issues with planning that is inhibiting them from developing new skills and strategies that could be used to engage students.

In order to accomplish this, I will first need to present this information to the administration team as well as the Digital Learning Specialist. They need to be aware that this is the perspective of a variety of teachers. We can then determine a technology committee dedicated to assisting the DLS in creating professional development lessons once a month for staff members. A larger survey for the staff would need to be designed that detailed what specific areas teachers are interested as well as what applications could be useful to further the instruction of students depending on the content area. The meeting with admin, DLS, and creation of the survey could be done within the month of October. Once the survey data has been analyzed, the committee can be created based on the skill level of various teachers who have strengths in that area of technology, or the DLS can create a presentation based on that skill. This would take another 2 weeks which could begin the professional development in November. The committee could meet bi-weekly and determine the next topic and then create the presentation with the help and assistance of the DLS. By doing so, this would help teachers have the ability to attend monthly professional developments that are tailored to the very skills they stated they wanted to learn. Depending on the suggestions provided in the survey, there could possibly be two professional development opportunities per month. Teachers would have the ability to give feedback after every presentation and allow input along the way. This process would last from October to May.

## Appendix

### Interview: Brandon Littleton

1. Provide your name, number of years teaching and the content area that you are currently teaching in. My name is Brandon Littleton and I have been teaching for four years, this being my fifth. I am currently teaching 7th Grade Social Studies.

2. Tell me about your history with technology? Provide details about your experiences that are tied to education. My whole life I grew up with technology. My father has worked for schools in the technology department since my birth. So, I have been around technology ever since I can remember. Then in college I took to technology classes and once I began teaching, I typically always tried to implement technology into my lessons. I am also a level 1 Google certified teacher.

3. Which technology platforms are familiar with or use often in your class? I am familiar with and use the following platforms: Nearpod, Edpuzzle, Socrative, Gimkit, Quizizz, Kahoot, Blooket, Classroom Screen, Brainpop, Sierra software, Minecraft, all Google applications, Readtheory, USA Test Prep, Quizlet, Flocabulary, all Microsoft applications, Oracle Virtualbox, Schoolnet, and itsLearning. Those are all the ones I can think of at the top of my head, but I know I am familiar with more.

4. In what areas would you say that you need to growth with using technology in the educational setting? The area I would say I need the most growth is probably in coding. I feel that skill will be needed more and more. It's also something I'm interested in learning about since I am not too experienced with it. Since it has a lot of real-world value, I think it would be an asset to the classroom.

5. In what areas do you believe that you have strengths with using technology in the educational setting? I feel that in almost every area besides coding, I have strengths when it comes to using technology in the education setting. Even if it's a new technology, I feel I can learn it very quickly.

6. How do you believe the administration could assist and support you in your endeavors to use technology in your classroom? I believe that if I can prove my level of knowledge with the use of technology in the classroom then I should be allowed to skip any meetings dealing with technology so that I might be able to focus on the implementation of technology in the classroom. I found that implementing technology in the class can be very effective but only if the teacher is allowed time to properly prep it for classroom use.

7. What are some of your technology goals for your instruction this year? Implement fun games and technology to better teach my students. This way learning will feel less like a chore and more of a fun activity. Plus, I think this will allow students to show their creative sides and better express their knowledge.



8. What resources would you need in order to reach this goal? The biggest things I need to better implement these things are: stronger/faster internet, computers with better hardware, ethernet cable access, a better projector, and ideally funds to use for technology purposes (lights, website access, games). The last one I know would be difficult to agree to but with proper implementation and tracking it can make a massive difference.

9. In what ways do you use technology for assessment purposes, data analysis, or reviewing? I mainly use it for formative purposes. These formative assessments could be multiple different things. Sometimes I have students draw a picture to best represent an idea or concept, or it could be a simple

quiz, or a short creative story that shows the concept or idea within it. Our tests are always digital as I think this is the best way to track response time on questions, total amount of time spent on the test, and overall progress with their peers and themselves. This data can provide a lot more insight for analysis than physical tests.

10. What suggestions do you have to improve the professional development regarding instructional technology uses in your grade level, content area, or in the building? I think that since differentiated instruction is stressed so much on teachers to implement but is not in place for teachers in professional development is an extreme oversight. It can stifle the development of teachers who at a higher level and can lead to underachievement. This can be applied to every aspect in the education world. I think a lot could be done to improve upon professional development if time was given to properly develop and implement better practices. This development period could be used to research the real needs of teachers and gauge their levels. The implementation could be done in small groups first to test it out, say in a content area or grade level, to prove its effectiveness. Teachers being honest about what they need is possible ONLY IF they know their needs will be heard and that they know they will have support.

11. What do you think the school is lacking in technology integration, and what can be done to satisfy that need? Classes with a focus on technology are almost non-existent. I think that since our world is becoming more and more technologically focused, having our schools teach with ancient principles and almost ancient technology that it severely limits our ability as educators to properly prepare our students for the real world. Though I do understand the update and maintenance of technology can in itself be very expensive. I think that if classes were taught about properly handling technology that it could help bring down cost on maintenance.

12. What resource or instructional strategy would you like to teach, that right now is impossible because of lack of technology? Virtual reality implementation. I would like to be able to take students inside the history so they might see everything we talk about with their own eyes. To walk the streets of places thousands of miles away and visit places hundreds of years in the past.

### **Interview: Kimberly Palmer**

1. Provide your name, number of years teaching and the content area that you are currently teaching in. Kimberly Palmer, 23, Gifted Language Arts 8<sup>th</sup> grade

2. Tell me about your history with technology? Provide details about your experiences that are tied to education. My history with technology is pretty ok. I have been technology teacher of the year at a previous school. I look for ways to integrate technology in my classroom to enhance or remediate the instruction given. This typically looks like students using the technology as a helper and not just the teacher using the technology to give the lesson.
3. Which technology platforms are familiar with or use often in your class? Flipgrid, quiziz, kahoot, quizlit, Think Cerca, ReadWorks, padlet and escape rooms
4. In what areas would you say that you need to growth with using technology in the educational setting? I would like to find ways to integrate technology more for the students that will enhancethe learning experience for students.
5. In what areas do you believe that you have strengths with using technology in the educational setting? I think my strength is the fact that I am willing to try new things
6. How do you believe the administration could assist and support you in your endeavors to use technology in your classroom? They can not unless they hire a real DLS
7. What are some of your technology goals for your instruction this year? I do not have any sorry
8. What resources would you need in order to reach this goal? The resource of time
9. In what ways do you use technology for assessment purposes, data analysis, or reviewing? Schoolnet is used to administer tests and we look at the different data reports to analyze it.
10. What suggestions do you have to improve the professional development regarding instructional technology uses in your grade level, content area, or in the building? To get a real DLS that will actually train us in what we need.
11. What do you think the school is lacking in technology integration, and what can be done to satisfy that need? Hire a real DLS
12. What resource or instructional strategy would you like to teach , that right now is impossible because of lack of technology? Nothing

**Interview: Rachel Stroman**

1. Provide your name, number of years teaching and the content area that you are currently teaching in. 10 years, 6<sup>th</sup> grade Language Arts, inclusion
2. Tell me about your history with technology? Provide details about your experiences that are tied to education. Prior to virtual learning, my knowledge of technology was basic. I used Microsoft Office and social media platforms. I did not use technology on a daily basis until I did

not have a choice. Since teaching virtually, I assign over 90% of assignments, communicate with parents, host meetings, and save all documents online. I rarely use hard copies and folders.

3. Which technology platforms are familiar with or use often in your class? Microsoft Teams, Classlink, ThinkCerca, IXL, ItsLearning, Boom Cards, Flocabulary, and Schoolnet.

4. In what areas would you say that you need to growth with using technology in the educational setting? An area of growth is Schoolnet when it involves choosing the standards/skills questions for assessments. Creating the assessments in Schoolnet is also an area of growth.

5. In what areas do you believe that you have strengths with using technology in the educational setting? I believe I have strengths in differentiating lessons online. I find it easier to create or modify a task, rather than finding ways to modify or differentiate hard copies.

6. How do you believe the administration could assist and support you in your endeavors to use technology in your classroom? Having a knowledgeable technology person that is current and up to date on platforms, updates, and understands all platforms used by the staff will be beneficial.

7. What are some of your technology goals for your instruction this year? I would like to incorporate more student-centered learning through technology.

8. What resources would you need in order to reach this goal? Differentiated resources for the various levels of learners is a helpful resource to assist in reaching the goal.

9. In what ways do you use technology for assessment purposes, data analysis, or reviewing? Technology automatically averages, sorts, and organizes data. When I analyze data, I am able to group and see specific details immediately. Having the data sorted and being able to filter it to meet my needs helps me know the strengths and weaknesses in individual student responses and on standards/skills.

10. What suggestions do you have to improve the professional development regarding instructional technology uses in your grade level, content area, or in the building? The technology platforms should be taught and explained to all teachers prior to being asked to analyze data. Everyone is not familiar with technology and how to maneuver on various platforms.

11. What do you think the school is lacking in technology integration, and what can be done to satisfy that need? The school has enough technology integration, but there is not enough support to train, explain, and problem solve new platforms and technology updates. The wifi is something that can be problematic and hinders consistent learning at times.

12. What resource or instructional strategy would you like to teach , that right now is impossible because of lack of technology? I would like to teach differentiation with the use technology.

**Interview: Sharon Slocumb**

1. Provide your name, number of years teaching and the content area that you are currently teaching in. Sharon Slocumb, 6yrs, Social Studies
2. Tell me about your history with technology? Provide details about your experiences that are tied to education. I have limited technology history. I can trouble shoot basic issues only.
3. Which technology platforms are familiar with or use often in your class? itsLearning, Microsoft (Word, PowerPoint, Teams)
4. In what areas would you say that you need to growth with using technology in the educational setting? Using Minecraft Education App to enhance lessons.
5. In what areas do you believe that you have strengths with using technology in the educational setting? I can use our itsLearning platform well.
6. How do you believe the administration could assist and support you in your endeavors to use technology in your classroom? PL classes that focus on improving technology skills
7. What are some of your technology goals for your instruction this year? Begin using one new form of technology instruction
8. What resources would you need in order to reach this goal? A listing of technology that enhances social studies and a PL session with basic usage instructions.
9. In what ways do you use technology for assessment purposes, data analysis, or reviewing? Data analysis is done by taking data from the Schoolnet testing platform and entering each data for each class to determine which classes need additional support.
10. What suggestions do you have to improve the professional development regarding instructional technology uses in your grade level, content area, or in the building? I suggest my school increase the available classes related to technology.
11. What do you think the school is lacking in technology integration, and what can be done to satisfy that need? The school is lacking having a technology person that is available every day for teachers rather than certain days of the week.

12. What resource or instructional strategy would you like to teach, that right now is impossible because of lack of technology? None.

**Interview: Victoria Reaves (Marshall)**

1. Provide your name, number of years teaching and the content area that you are currently teaching in. Victoria Marshall, 4 years, 7th Grade Math

2. Tell me about your history with technology? Provide details about your experiences that are tied to education. I have used laptops and computers for the majority of my educational and occupational career. I have intermediate to advanced knowledge of many computer software programs like Word, PowerPoint, and Excel. I also have used apps and add-ons like PearDeck, Teams, and Zoom for instruction or professional development. I find that the past year has really helped to expand my technological knowledge.

3. Which technology platforms are familiar with or use often in your class? Currently I use the Microsoft Office Suite most often (Word, Excel, PowerPoint, etc) in addition to the Its Learning platform through the district.

4. In what areas would you say that you need to growth with using technology in the educational setting? I would like to learn more about free programs/apps that engage students and provide immediate feedback opportunities.

5. In what areas do you believe that you have strengths with using technology in the educational setting? I would say that my strength is a basic knowledge of technology to build upon. I know how to complete most tasks on a computer

6. How do you believe the administration could assist and support you in your endeavors to use technology in your classroom? Administrators could have more regular training on technology with a monthly focus. I would like for a new platform or app to be highlighted that teachers could use and see how it works in their classrooms.

7. What are some of your technology goals for your instruction this year? To use a variety of technological platforms for weekly instruction.

8. What resources would you need in order to reach this goal? Access to a resource bank that could provide programs to use.

9. In what ways do you use technology for assessment purposes, data analysis, or reviewing? Technology is the primary method for assessment. Most of the tests and

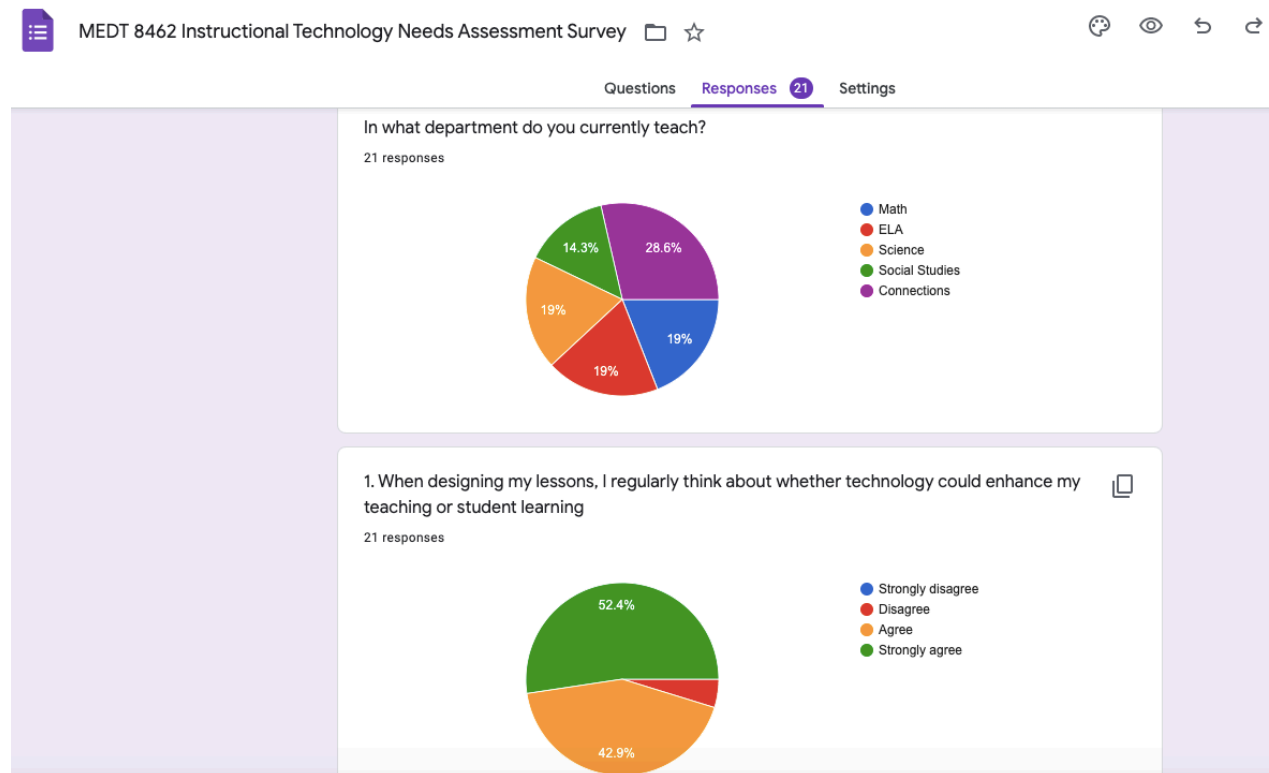
quizzes given require students to use some form of technology to complete it. For this reason, most of the data is collected and reviewed in the program in which the assessment is given.

10. What suggestions do you have to improve the professional development regarding instructional technology uses in your grade level, content area, or in the building?  
(See question 6)

11. What do you think the school is lacking in technology integration, and what can be done to satisfy that need? I'm not sure.

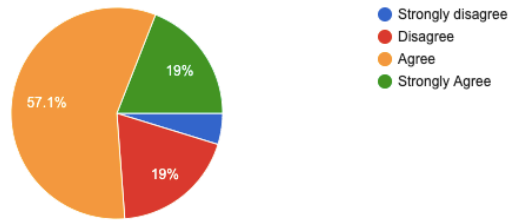
12. What resource or instructional strategy would you like to teach, that right now is impossible because of lack of technology? I don't feel that there is anything that I'd want to teach that we don't have the technology for.

### Survey Data



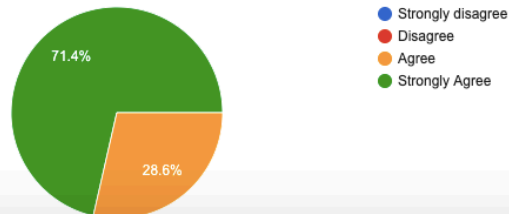
2. When selecting education technologies, I refer to and base my selections on current research on their effectiveness?

21 responses



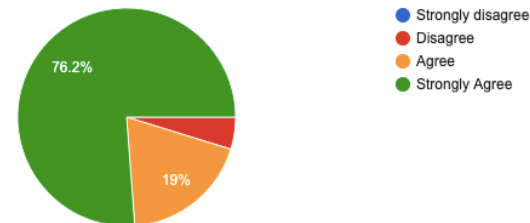
3. I am comfortable planning for class sessions that involve students using technology during instruction?

21 responses



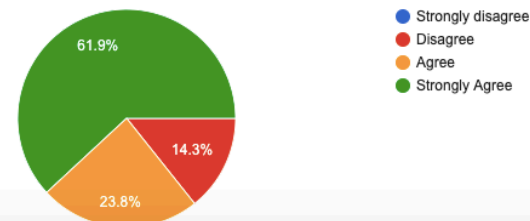
4. I regularly use technology to enhance learning in my classroom?

21 responses



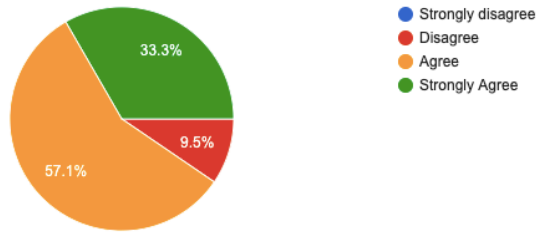
5. I have classroom management and organizational strategies for using technology and can smoothly orchestrate learning activities when my students use technology

21 responses



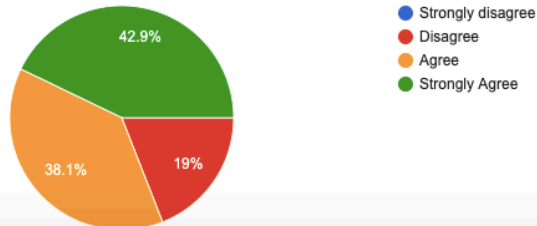
6. I use technology to help me manage student assessment data

21 responses



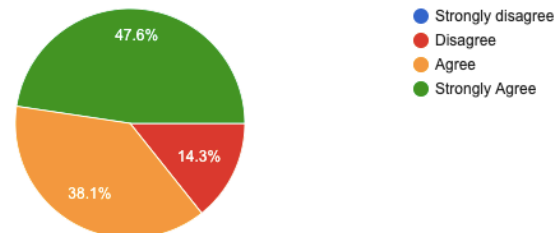
7. I can comfortably use technology to help me gather, analyze, and interpret data on student progress.

21 responses



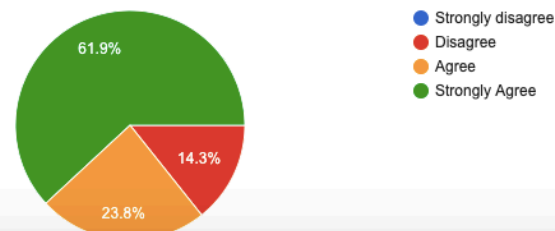
8. I use technology to support my own professional growth through activities such as online learning, research, and collaborative projects

21 responses



9. I regularly use technology to communicate and collaborate with peers (email, threaded discussion boards, teams meetings, etc)

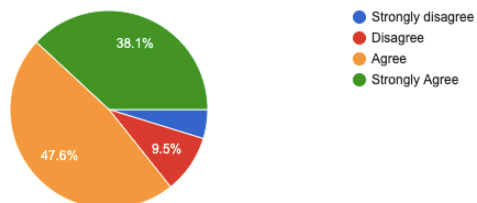
21 responses





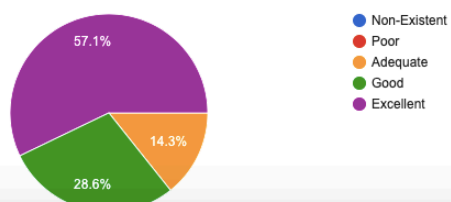
10. I regularly use technology to create effective strategies or assessing the content of students' technology-supported work

21 responses



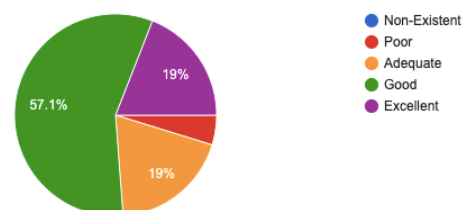
11. I have access to a sufficient number of computers and other equipment so I can implement technology-supported learning opportunities as I want to

21 responses



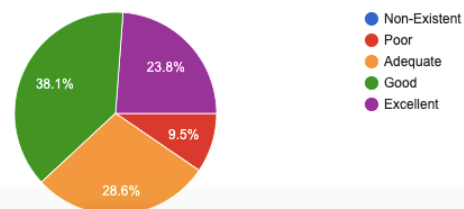
12. I have access to reliable computers, printers, projectors, and other equipment

21 responses



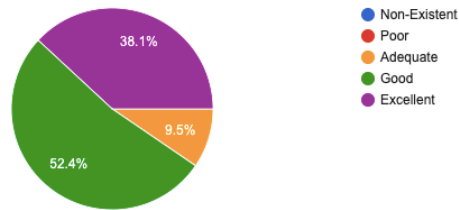
13. I have access to reliable high-speed internet, access in classrooms, labs, and media centers

21 responses



14. I have access to multiple applications and technology tools for my own productivity (electronic gradebooks, word processing, presentations platforms)

21 responses



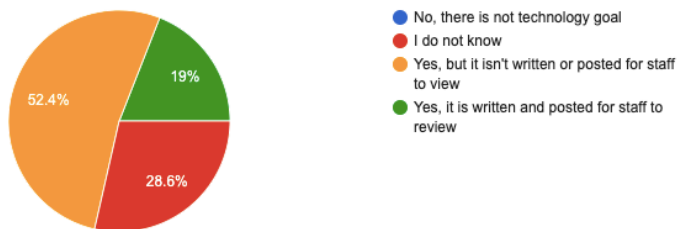
15. Does your school have a vision for how technology should be used by students and teachers to improve teaching and learning

21 responses



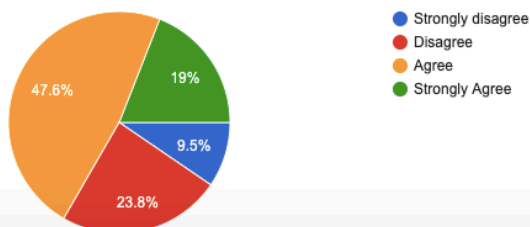
16. Does your district have a vision for how technology should be used by students and by teachers to improve teaching and learning?

21 responses



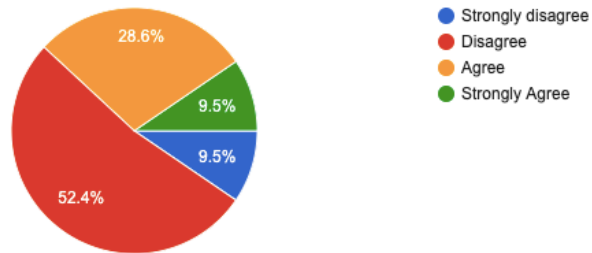
17. I am familiar with the SAMR model and use it often within my classroom when using technology

21 responses



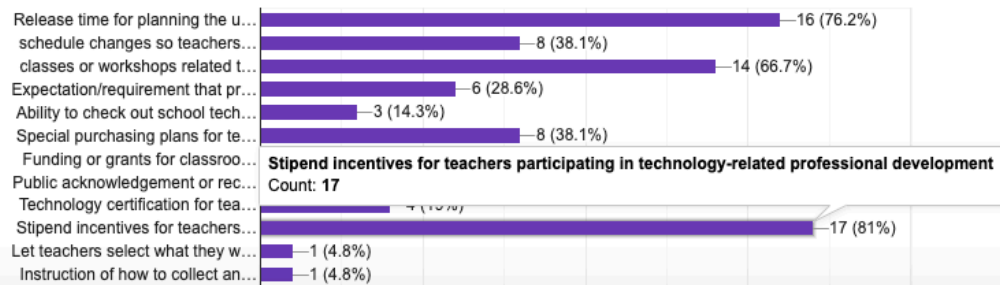
18. Incentives are provided to teachers who adopts proven best practices related to technology

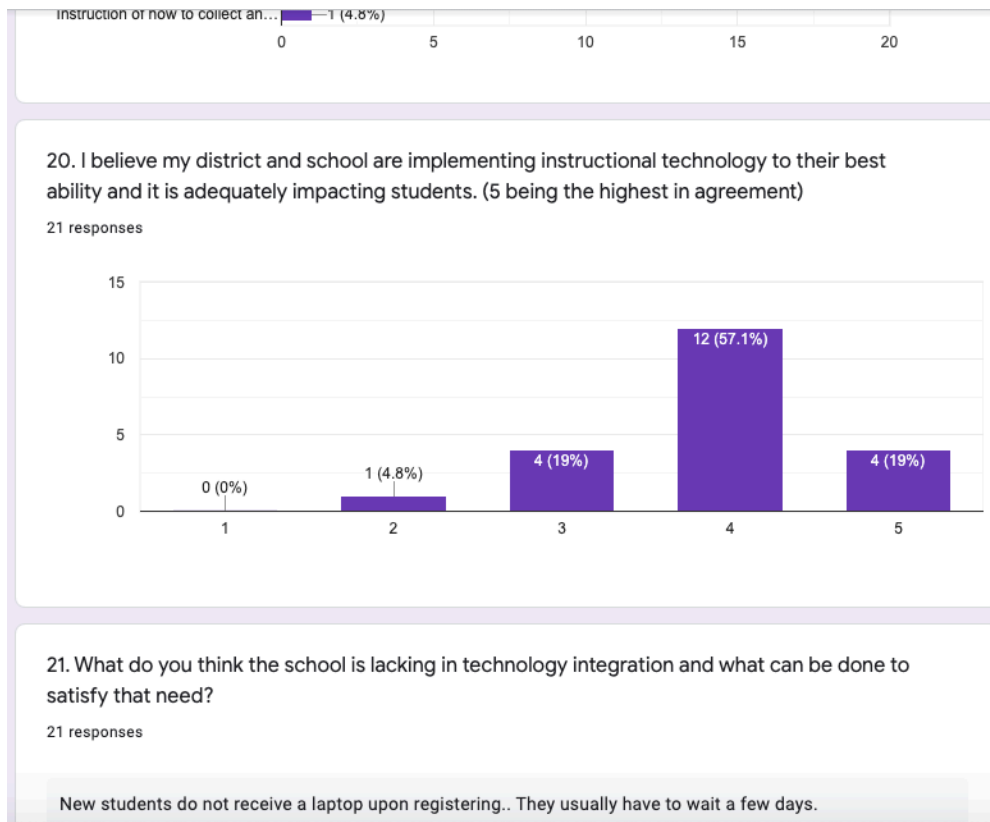
21 responses



19. Which of the following items would encourage teachers to use more technology?

21 responses





New students do not receive a laptop upon registering.. They usually have to wait a few days.  
working laptops

Provided printers, or other tech tools used to teach, smart boards would be helpful too.

A real plan on how to effectively use it. \*Talk to teachers to see how they really feel about using technology and real viable ways to use technology effectively to have the greatest impact. I feel like they bought the computers just to toot their horns on being the first to be One to One in the state and we're just expect to use the computers becasue we have them.

Teachers need more freedom to choose what they want to use.

Continued Professional Development opportunities specifically for technology and how to implement in the classroom

Since we are a one-to-one district we are in need of adequate WORKING technology. Sometimes that might be simply adding more staff to handle these issues.

A lot of teachers do not have the expertise to fully implement technology  
we need more INTEL help.

Update student laptops, repairing/replacing broken laptops, time for planning and creating technological activities

Right now, our school is lacking in updated technology after our virtual and Hybrid year. Student computers are old and have many glitches.

We are lacking CONSISTANT training on how to use our technology more effectively in order to enhance student achievement and learning.

More accessible apps would be beneficial.

Funding technologies for individual classroom use or needs dependent on subject area.

Adequate DLS support for teachers

Technology workshops.

I believe my school gives all staff and students sufficient access to technology, but instructional strategies on how to effectively utilize the technology would be helpful.

Not enough developmentally appropriate technology based resources for students. My district is 1:1 from 3rd grade-12th grade. Students are using and implementing technology way to much and skipping over the concrete development needed to solidify content understanding and technology use.

The teacher who are hesitant to implement technology are not using it and may need more training on a smaller scale than faculty meetings.

The only thing I feel is missing at our school is consistent ban width. I get a notice weekly about a week signal.

The lack of educational app subscriptions needed to have a variety of data points

22. What resource or instructional strategy would you like to teach , that right now is impossible because of lack of technology?

21 responses

N/A

n/a

I don't know

Not sure

NA

Nothing comes to mind directly.

Virtual Reality

We need more intel help for students laptops

I can't think of anything.

Right now I would love to use PBIS points, but it is not set up.

Google Docs

GOOGLE, APPLE driven products.

na

None for now.

none

I would not mind sharing how I use power points to teach lessons.

Digital Arts- Lack of art software

I can't say for sure right now