MONTGOMERY COUNTY PUBLIC SCHOOLS
BOARD OF EDUCATION

December 8, 2015

Public Comments of Jim Wrathall
Coordinator, MCPS Educational Technology Task Force

In April a group of parents started a petition urging the Board not to cut funding for implementation of the MCPS Strategic Technology Plan – the Chromebook rollout. The response was strong. Just by word of mouth, we had close to 1200 signatures.

Most striking was the number of teachers who signed the petition, and the hundreds of narrative comments they submitted. The teachers talked about how powerful and useful the technology is; the massively increased opportunities for collaboration and learning; and how important it is for the students that MCPS continue the rollout without interruption.

As we watched the Board consider the issues, it became clear that there is a major gap in information. Anecdotally, we were hearing the teachers say the technology is incredibly impactful and vitally important. But there was no discussion of those matters by the Board. What became clear is that with the program being in such an early stage, there was little data to go on.

To help fill this gap, a group of parents, teachers, and students have formed the MCPS Educational Technology Task Force, a volunteer group with the mission of providing objective information regarding classroom technology in MCPS.

The first step was to organize a comprehensive survey of MCPS teachers, which was conducted in November. A total of 1,071 teachers and specialists responded, from 142 different MCPS schools. The results are attached to these comments.

The Task Force also formed a Teachers Review Committee comprised of 21 teachers from schools around the County. The Committee reviewed the data from the survey responses and provided a report and recommendations, also submitted today.

We strongly urge each of you to take 10 minutes and review these materials.

What you will see is that the Technology Program is succeeding massively, far exceeding what would been expected when you approved it in 2014.

- Teachers with access have fully embraced the technology across a broad range of educational purposes.

- Over 90% of teachers report the technology is empowering and very important in their teaching.

- More than half say that for them, this technology is transformative – offering major new learning capabilities in multiple ways.

- More than 98% said that funding for the program should be continued.

- There are many more specific and compelling findings discussed in the attached materials.

In addition, the teachers submitted over 1,000 narrative comments on ways they are using the technology and how important and impactful it is. These comments are extraordinary. They paint the picture of incredible gains that are being made right now. Every school day, across thousands of classrooms, with tens of thousands of students, these technologies are making a huge difference in meeting the MCPS mission.

The bottom line is that this Board and MCPS should be congratulated and should be celebrating an enormous success.

One vital point, as stated by the Teachers Committee found, is that the Chromebooks are:

> particularly effective in educating students with special needs, ESOL, and FARMS groups. Full and immediate access to this technology is fundamentally an issue of equity: it is imperative if MCPS is serious about closing the achievement gap.

With respect to the MCPS mission statement of "preparing students for colleges and careers," approximately 92% of the teachers said access to the technology will be "absolutely essential" or "very important" to the students' preparation for college and careers.

We know there are budget challenges. But based on the results of the teachers survey, there will be no budget decision that this Board is going to make this year that will have a greater impact on students across MCPS than your decision to fully fund this program.

The stakes on the other side are very serious. More than 60% of the teachers in the survey stated that not making this investment would "significantly fail our students." For students in middle school, if the program were now to be stopped for grades 8 and above, 94% of the respondents said it would be "significantly" or "very" "detrimental" to the students.

We very much appreciated the promise you made, Ms. O'Neill, as reported in the Washington Post in September, that the Board is truly committed to the Chromebook rollout. We trust that other Board members will join you in this commitment.

We have been in discussions with officials in the County Council's office. It has become clear that the technology program needs to have its own budget line item or PDF. We will be working very closely with all of you and the Council in making sure that is put in place promptly. The Task Force is going to be very active as publicly as possible in informing Montgomery County families on these matters and encouraging their participation.

Obviously I would give you a much fuller report with more time. I am happy to answer any questions or to speak with you at another point to discuss this.

MCPS Educational Technology Task Force

Survey of MCPS Teachers and Specialists on Uses and Continued Deployment of Classroom Technology

December 4, 2015

MCPS Educational Technology Task Force
Teachers Review Committee

Summary Report: Survey of MCPS Teachers and Specialists on Uses and Continued Deployment of Classroom Technology

Introduction

The MCPS Educational Technology Task Force is a volunteer group of teachers, parents, and students formed to collect, analyze and present data regarding the implementation of the MCPS Strategic Technology Plan. Adopted by the MCPS Board in July 2014, the Strategic Technology Plan calls for deployment of wireless educational technologies – Chromebook laptops and Google Apps for Education – in all MCPS classrooms. The Plan has been rolled out in most classes in grades 3 – 7 and some high school subject matters.

Due to budget pressures, MCPS has said that it will be challenging to fund continued rollout of the program. To support full evaluation of the policy choices, in November 2015 the Task Force undertook a survey of MCPS educators to compile data on the effectiveness and importance of continuing the Strategic Technology Plan. The goal of the survey was to generate comprehensive and reliable data from a broad range of teachers and specialists who have used these Interactive Classroom Educational Technologies (referred to in the survey as "ICET") in MCPS. The survey evaluated the following general topics:

- Extent of use of ICET in MCPS classrooms to date

- Types of educational activities in which ICET is used

- Importance of ICET in achieving MCPS educational goals, including the MCPS mission of ensuring students are prepared for college and careers

- Whether ICET is important in mitigating impacts of overlarge class sizes

- The potential adverse impact on students who have used ICET for two years if the program is not continued

- Whether educators believe ongoing ICET deployment should continue to be funded

- Additional potential of ICET going forward

The Task Force Teachers Review Committee (see list of Committee members at Attachment A) has evaluated the data generated by the survey and is submitting this report summarizing the results.

Methodology of the Survey

The MCPS Classroom Educational Technology Survey was conducted using a Web-based electronic survey template. Questions were prepared to seek objective data addressing the topics above. The survey questions and full survey results can be viewed at www.mcpsedtech.org

The survey was widely distributed across MCPS schools. A total of 1,071 responses to the survey were received during the period in which it was live, from November 2 through December 4, 2015. Responses were provided from educators from 142 different MCPS schools, out of 202 total in MCPS.

Most of the respondents included their *mcpsmd.org* email addresses, as requested, thus providing verification of identity and unique responses. Based on statistical principles this survey sample size provides representative accuracy of the entire population to within plus or minus 3% at a 95% confidence level.

All of the data entered by the respondents were retained and reflected in the results reported below; no responses were edited or deleted for any reason. The sources and storage of all data were tracked in detail. All data and methodology are available review and auditing upon request.

Survey Results: Scope and Breadth of Use of ICET

Approximately 95% of the survey respondents stated that they had used ICET in MCPS teaching.

Approximately 80% of the teachers and specialists with access use ICET either "frequently" or "very frequently."

The technology is being used for a broad range of educational purposes, including online research (86%); collaboration with other students (72%); presentations (70%); accessing electronic textbooks and learning materials (69%); multi-media projects (62%); electronic communication between teachers and students (61%); assigning, submitting and reviewing homework (57%); testing and assessments (51%); and working on projects from home (47%).

Educators report that ICET provides a good to major contribution in each of the following areas:

- Providing immediate feedback and ongoing personal interaction (82%)

- Teaching lessons in class (85%)

- Addressing special student needs (88%)

- As a tool for English language learners (82%)

- Supporting customized learning (90%)

Survey Results: Importance of ICET in Meeting Educational Goals

A total of approximately 92% of the respondents view ICET as "empowering" in their teaching; approximately 58% called ICET "extremely empowering" enabling them to be "much more effective and efficient."

A total of 94% of the respondents agreed with the statement that availability of ICET is "very important in maximizing learning opportunities for my students."

Asked the question "How important is availability of ICET for improving MCPS students' learning opportunities?"

- 54% of the respondents stated the technology is "transformative, offers very important new learning opportunities in multiple ways"

- An additional 34% said the technology is a "substantial positive contribution: provides students with major opportunities to learn and grow including important capabilities that would not otherwise be available."

Respondents also view ICET as extremely important or absolutely necessary for providing STEM education (89%); providing helpful ability to personalize education for students (97%); and helpful in mitigating impacts of overlarge class sizes (87%).

With respect to the MCPS mission statement of "preparing students for colleges and careers," approximately 69% of respondents stated that access to the technology will be "absolutely essential" and another 23% said "very important" to the students' preparation for college and careers.

Survey Results: MCPS Educators' Views on Continued Funding and Impacts of Cutting the Program

Survey respondents were asked whether they believed it is important to provide funding for continuing the rollout over the next few years.

- More than 98% of the respondents said that this investment is important and the program funding should be continued.

- Approximately 62% of the respondents stated that "not making this investment would significantly fail our students."

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- For students who have used ICET in grades 6 and 7, if the program were now to be discontinued, halting rollout to grades 8 and above, 94% of the respondents said it would be "significantly detrimental" or "very detrimental" to the students.

Survey Results: Future Potential for ICET

The survey noted that the program has only been underway for about 2 years, and asked the respondents whether they believe it has significant additional future potential.

- 74% of the respondents stated they believe ICET has major future potential, that it "offers powerful and innovative learning tools" and that "we have only begun to tap the vast potential benefits."

- Another 22% stated that ICET has substantial future potential, with "much more to offer as teachers and students develop its capabilities."

Narrative Comments Submitted in Response to the Survey

In addition to answering the survey questions, the educators submitted over 1,000 specific narrative comments regarding the important and beneficial uses of ICET, criticisms and negative points, and their further views on continuation of the program. Highlights from the narrative responses are excerpted in Attachment B below.

It should be noted that there were also many comments providing feedback on how the program could be improved. Key themes included the need for greater training resources and the need to ensure that enough devices are being made available for all students.

All survey results, including all narrative comments, can be viewed at www.mcpsedtech.org

ATTACHMENT A

Members of the Task Force Teachers Review Committee

Larissa Amador	Briggs Chaney Middle School
Carroll Altshuler	Wilson Wims School Elementary School
Kylene Beshore	Wilson Wims School Elementary School
Adam Boorstein	Northwood High School
Clifford Cooper	Springbrook High School
Craig C. Crowley	Rosa Parks Middle School
Jennifer L. Gable	Gaithersburg High School
Alicia Hall	Tilden Middle School
Elise Hawkins	Wilson Wims School Elementary School
Dana Holman	Wilson Wims School Elementary School
Mitchell Joy	Walter Johnson High School
Penny Keune	Quince Orchard High School
Eric Kling	North Bethesda Middle School
Andrew Kozlowsky	Argyle Middle School
Heather LaDuca	Wilson Wims School Elementary School
Dina Link	Northwest High School
Jeanette Marin	Takoma Park Middle School
Jason Milke	Clopper Mill Elementary
Joanna Pappafotis	Albert Einstein High School
Christina Presson	Flora Singer Elementary School
Cathy Stoll	Westbrook Elementary School

ATTACHMENT B

Excerpts from MCPS Classroom Educational Technology Survey responses, narrative comments (all direct quotes from survey respondents):

In order to prepare students to be career or college ready in the 21st century, we must teach them how to adapt to new technology and provide them with the skills that they need to independently navigate technologies that have not been invented yet.

I cannot stress enough the importance of continuing the ICET rollout for this coming school year and for later years -- the students are making significant advances in their learning, some of which would not have occurred without this aid of technology. Our students are thriving in this area, and to deprive them of these resources moving forward would not only be a huge step backward in their growth as learners, but it would also fail them in our effort to get them college and career ready.

If preparing 21st century learners is what MCPS strives to do, as the 3 core competencies are aiming to support, then let's invest the time and resources in making it happen. If not, just scrap the 3 core competencies altogether.

It would be a HUGE detriment to our students and community as a whole if we scale back this initiative. It has changed the way we teach and the way our students learn in order to get them ready for the world they will live in. I can\'t begin to stress the impact this has had in my classroom!

I truly believe this program is essential to the education of our students. 21st Century learners MUST learn how to harness the technology around them as an academic resource to be college and career ready when they graduate. In the two years this program has been present, I have seen a marked difference in the manner in which students interact with the technology around them. It IS important and it IS making a difference.

TECHNOLOGY IS THE FUTURE. IT SETS MCPS APART IN THIS REGION

This funding is essential to the success of our students!

Technology is a great equalizer. If we as a school system are as concerned about equity as we say, then this is a no brainer.

Cost of paper, pencils, textbooks, and other physical materials is probably more than a chromebook. The infrastructure investment has been made, the chromebooks are an investment that is more than single use, never goes out of date (like textbooks or news magazines, in the physical sense.)

This helps narrow the achievement gap since SE disadvantaged kids do not have access to technology at home.

If we do not continue the ICET rollout, our students will be at a great disadvantage when they go to college or a trade school.

I had chromebooks available in my classroom last year, and I used them almost every single day. This year, I do not have chromebooks available as they are allocated elsewhere. I have seen a huge decrease in student participation and productivity this year. Last year students were engaged and interested, and they enjoyed learning because of the chromebooks.

When you think about the world, everyone is connected through technology. If we take that away our students will be behind everyone else in learning those skills. Having the computers in the classroom, we can troubleshoot with them how to use technology so they can be successful at home. In class use with at home support is far more beneficial than at home struggling and the ability to say "I don't know how to do that." We are preparing them for the world.

The growth I see in students using Chromebooks over the year is incredible. It would be very detrimental to see my former 3rd graders move into a 6th grade class that does not have the daily use of chromebooks, which they are used to.

We NEED current technology and thoughtful training!!! THIS has been a GAME changer! Don't go backwards!

I am an 8th grade Social Studies teacher that does not have chromebooks in the classroom on a daily basis. However, the 6th and 7th grade students are getting access to them on a daily basis in Social Studies classes. Unfortunately 8th grade teachers have to share 2 chromebook carts amongst all the subjects, so it's not always possible to get them when we need them. When we do have them, I find them to be useful, and I can see many potential applications for educational purposes if I had them on a regular basis that cannot be replicated without having this technology. I am concerned that the current students who've had access to these resources in 6th and 7th grade will be set up for frustration in 8th grade by not having regular access to the Chromebooks. I also think that technology is obviously the present and future of business and career opportunities and that students need to see technology used for educational opportunities rather than just entertainment and time-wasting stuff they do at home with their technology.

If we are readying students for 21st century, it is imperative that they have daily access to chromebooks/computers.

Removing funding for this program would negate research, lessons, and materials which many teachers have spent significant amounts of time creating

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over the last few years for use in their classes. The use of the chromebooks also helps to reduce the printing demands - thus saving money for MCPS in another way.

The Social Studies department has Chromebooks and now it is time to for other departments to have access to them as well. Using Chromebooks in only 1 out of 7 periods a day doesn't benefit or prepare our students for our technologically advanced world. The access to ICET is essential for our students' academic and creative growth.

It is vital to continue to fund this program. The students are so able with the technology and invested in using it as a tool for learning. To strip it from them as they go into higher grades (and can use it even more) seems horribly unfair and will create a situation of haves and have-nots. Schools with supportive and wealthy PTAs will be able to afford chromebooks for the grades that should have been given them through the roll-out and the schools which DO NOT have active or wealthy PTAs will not have those chromebooks. The Board will be creating a severely unequal situation and that does not support their efforts to "Close the Achievement Gap."

Our school did not implement with 7th graders last year. Funding pulled. Students with written language impairments are able to create and write much easier. The ease of feedback a teacher can give to students on work helps students understand concepts and their own performance.

I have been an educator for 30 years in MCPS, the use of chromebooks for all our Grade 3, 4 and 5 students is truly a revolutionary change in teaching and learning. It affords students access to resources, and lets all student keep track of assignments, and their writing. It provides engaging and useful opportunities for our students.

Having Chrome Books in my classroom has been incredible. I can offer students a wide variety of learning activities and better meet the needs of all of my learners.

I feel insulted that I, as a professional, have to take the time to fill out this survey....why doesn't the MCPS board come out and take a look at the wonderful things this technology is doing in a classroom. I\'m disgusted with our Board for forcing this to be done. Please feel free to contact me directly at the email address below so that I can tell you what I really think.....absurd!!!

All students are benefiting from Chromebooks. They enhance lessons and provide many opportunities to enrich and meet the needs of every child. There are so many apps and resources that students are able to use. Teachers are able to provide immediate feedback and comments on students work. I can't

imagine teaching without them in the future. I feel that it would be a huge step backwards.

I can see the use of ICET reducing costs in the area of paper and printing. I have used Google Classroom this year in assigning student questions, readings, assessments, etc. which has cut down on the amount of printing and copying that I have to do.

As a special educator, it has been extremely beneficial having technology in the classroom. It addresses their needs more effectively and allows all students to access the learning material and curriculum in a variety of ways.

I cannot imagine being an effective teacher without Chromebooks in my classroom. My teaching has transcended to a higher level and ALL students benefit. CHROMEBOOKS ARE ESSENTIAL!!!

It would be DETRIMENTAL to not continue the rollout. The students who need this technology are the upper level students. It would be awful to have my students (5th graders) be so entrenched in the technology and then lose it just as they are actively preparing for college/careers. This is absolutely not a 'cut' option from the budget- it MUST be continued.

This technology encourages students to be focused and on-task more so than any other teaching technique I have observed. It allows for greater differentiation in lesson plans. It allows for management of large classes - even when doing a hands-on activity with some students, others can be meaningfully engaged in learning. The breadth of resources available to students is staggering, and really enriches instruction. Students need to be prepared for a digital future, and in many ways they are ahead of what's being done in school. This tool allows us to teach them in a way that they feel comfortable enough to complete an assignment. It's almost like a game!

The students love it, the teachers love it, the administrators love it. What more could you ask for?

Last year, I had chromebooks in my classroom every day. This year, I changed schools and do not have daily access to chromebooks. This has affected my teaching greatly. I waste time at the copiers - often copying materials sent to copy plus that did not arrive on time. Additionally since the use of technology is not a part of the daily routine, activities take longer because I have to re-teach how to use the resources. Further, my largest class consists of 36 students. Chromebook carts are only equipped with 32 computers. Even when I have access to chromebooks, I may not have enough resources for all of my students.

Many of our students do not have access to a computer and come from low social economic homes. ICET is an essential tool in their development as technology savvy citizens, a must in our society.

You can't turn back the hands of time. I have waited 30 years to have one to one computing and am so happy to have finally received the hardware to allow this to happen. You might ask the Board how they would feel if they had to use typewriters from now on.

I believe MCPS is already behind the curve on ICET. At MCPS, we are just starting to use technology in ways that I was able to use it in my previous district 7 years ago. These students have been failed as digital citizens, and we cannot continue that way. As educators and as a district, we must provide this for our students and address equity issues.

The ICET rollout has become a fundamental tool in instruction. Students are learning 21st century skills that they need to be successful in life. Taking the funds away would be a HUGE mistake.

After utilizing the technology for two years, I cannot imagine going back now. We are actually able to teach students in the ways that they learn best. We can differentiate for them so much easier. We are able to foster collaboration in ways that were not possible before. It is worth whatever it takes in the budget.

ICET levels the playing field in my classroom. Students are engaged and learning is transparent and interactive. ICET is our future, teachers love it and students love it. Stopping the roll-out will leave an inequity in our district.

This program has transformed my teaching. It has allowed me to facilitate critical thinking discourse in my classroom like I could not before. It levels the playing field for so many students who have challenges that hinder their ability to learn. The parents of my students are in so much support of this technology in the classroom, that many of them have told me that they are willing to pay out of their own pockets to give students devices to use.

I believe it would be ridiculous to discontinue funding for ICET. Chrome books have become a part of daily life in my classes at Churchill (I teach Social Studies). Students are used to them and many of the apps. They love the ability to share documents, which is especially helpful when a student is out sick. Google Classroom is a godsend; SO much more efficient to use and streamlined than the antiquated Edline. My PLC has created almost all lessons with Chrome book usage in mind. It would be a crying shame not to continue to fund this vital program!

This is an issue of equity-- we cannot assume that all families have reliable internet and computer access at home and all students need access in order to be college and career ready

Please appropriate the funds to continue the ICET rollout in FY 2017! ICET has significantly transformed the educational experience of our students so far.

I was skeptical at first on whether or not Chromebooks would be a useful tool in the classroom, but now I find them to be an invaluable way to engage students fully in the curriculum - many of our resources are online and in the past students had limited access. I am able to have students read books electronically, watch and respond to a video clip, collaborate on projects through Google; communicate and share student work with parents online. I'm able to quickly provide feedback to students when I have a large class size online. If we are about the 21st century classroom, we need to make sure we are providing all students with access to a true 21st century classroom!

Not funding this is a step in the wrong direction. Our kids need MORE exposure to technology. We are so low on the scale when it comes to math and science as compared to other countries.

I think that students are going to be a disadvantage when they move on to 8th grade and HS. They have been referring it to "technology desert." The council needs to realize that teacher are using this. If given the opportunities, the upper grades would also benefit and use the technology. They were promised chromebooks eventually, they should get them. It is unfair to the students and staff.

I cannot imagine my classroom without the use of Chrome books. They allow me to challenge my students and provide differentiation of instruction in ways not previously possible.

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

Access to and use of classroom technology

1. In your teaching, do you have access to wireless educational technology - specifically, the combination of Chromebook devices and Google Apps for Education – referred to in this survey as "Interactive Classroom Educational Technology" or "ICET"?
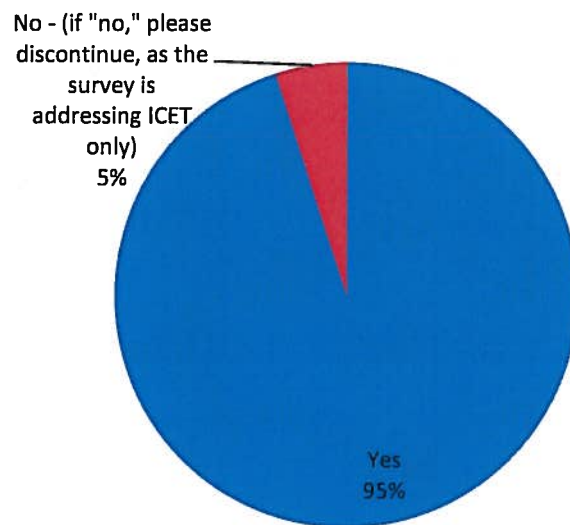
Value	Percent	Count
Yes	95.3%	1,014
No - (if "no," please discontinue, as the survey is addressing ICET only)	4.7%	50
Total		1,064

Survey of MCPS Teachers and Specialists - November 2015 Regarding Interactive Classroom Educational Technology ("ICET")

2. If your answer was "Yes," how extensively do you use ICET in your teaching?
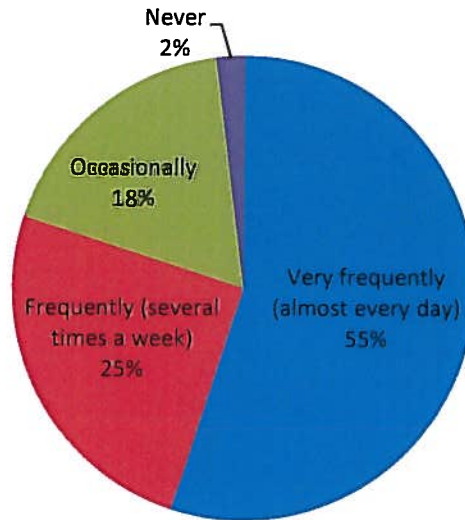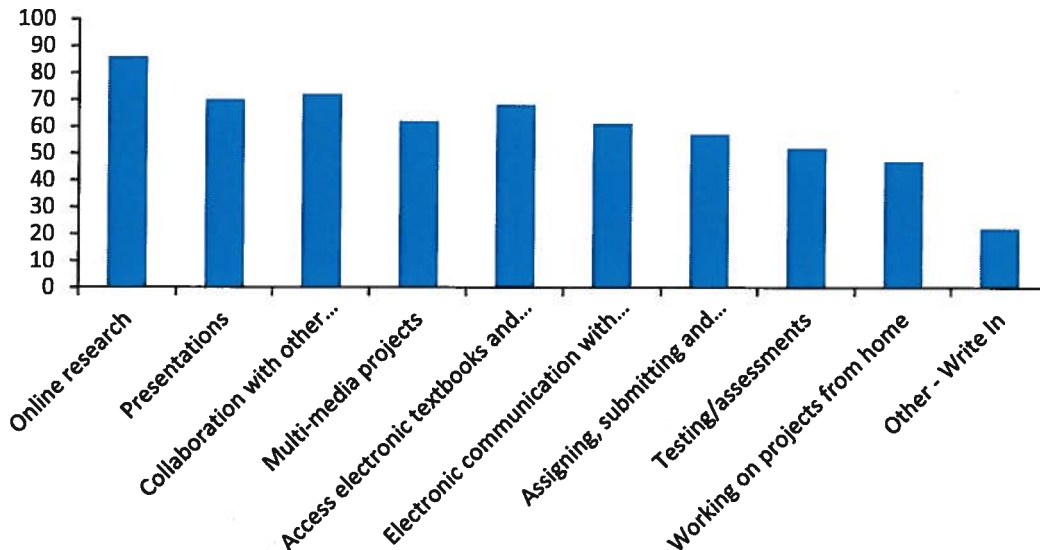

Value	Percent	Count
Very frequently (almost every day)	55.3%	565
Frequently (several times a week)	24.7%	252
Occasionally	18.4%	188
Never	1.6%	16
Total		1,021

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

3. For what educational activities do your students use ICET (check all that apply):

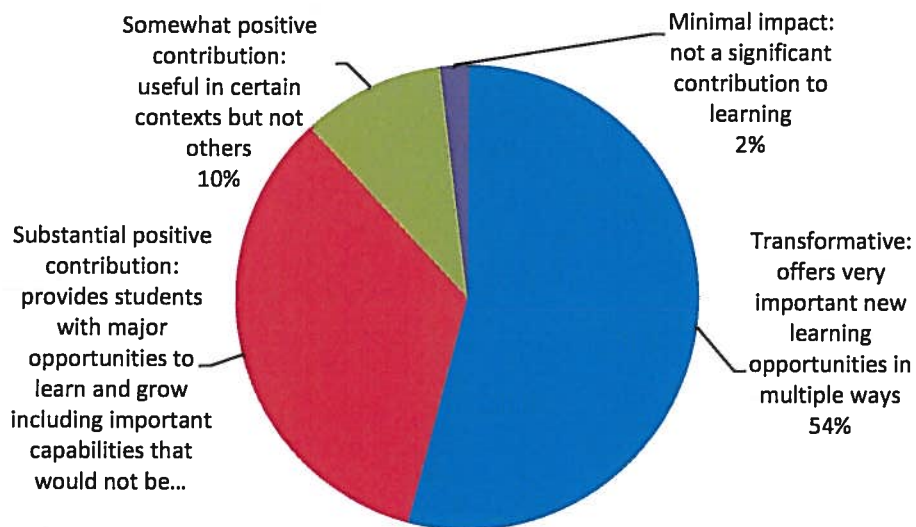| Value	Percent	Count
Online research	86.2%	872
Presentations	70.3%	711
Collaboration with other students	72.1%	730
Multi-media projects	62.5%	632
Access electronic textbooks and learning materials	68.4%	692
Electronic communication with teachers	60.7%	614
Assigning, submitting and reviewing homework	56.9%	576

Survey of MCPS Teachers and Specialists - November 2015 Regarding Interactive Classroom Educational Technology ("ICET")

Testing/assessments	51.7%	523
Working on projects from home	47.3%	479
Other - Write In	22.4%	227
Total		1,012

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

Impact and importance of classroom educational technology

1. How important is availability of ICET for improving MCPS students' learning opportunities?
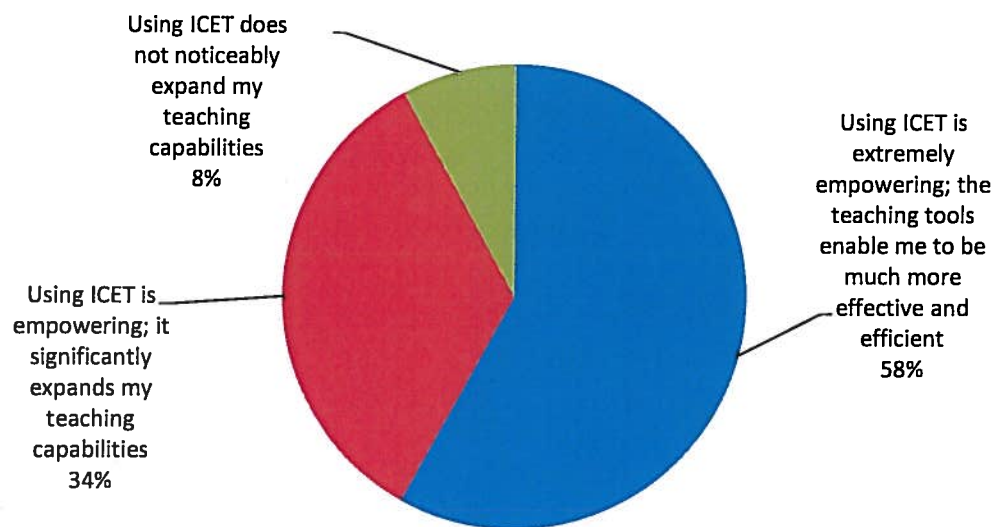

Value	Percent	Count
Transformative: offers very important new learning opportunities in multiple ways	53.7%	540
Substantial positive contribution: provides students with major opportunities to learn and grow including important capabilities that would not be available otherwise	34.3%	345
Somewhat positive contribution: useful in certain contexts but not others	10.2%	102
Minimal impact: not a significant contribution to learning	1.8%	18

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

Total		1,005

Survey of MCPS Teachers and Specialists - November 2015
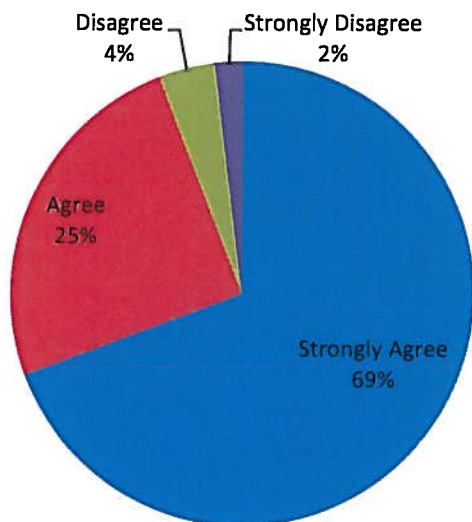# Regarding Interactive Classroom Educational Technology ("ICET")

2. To what degree do you feel using ICET empowers you in teaching?

Using ICET does not noticeably expand my teaching capabilities
8%

Using ICET is extremely empowering; the teaching tools enable me to be much more effective and efficient
58%

Using ICET is empowering; it significantly expands my teaching capabilities
34%

Value	Percent	Count
Using ICET is extremely empowering; the teaching tools enable me to be much more effective and efficient	57.7%	579
Using ICET is empowering; it significantly expands my teaching capabilities	34.2%	343
Using ICET does not noticeably expand my teaching capabilities	8.1%	81
Total		1,003

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

3. How accurate is the following statement: "The availability of ICET in my classroom is very important in maximizing learning opportunities for my students."

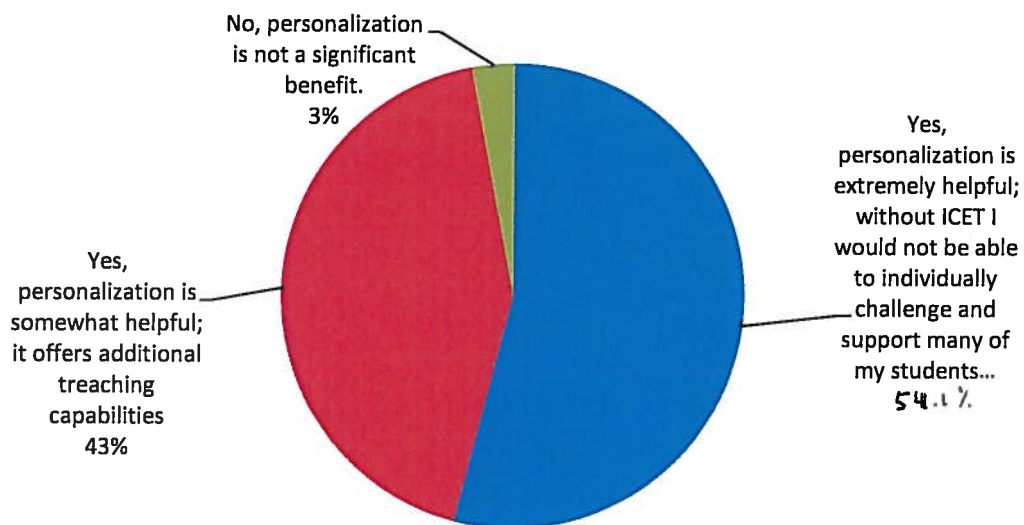| Value	Percent	Count
Strongly Agree	70.0%	700
Agree	24.5%	245
Disagree	3.5%	35
Strongly Disagree	2.0%	20
Total		1,000

4. In today's economy, how important it is that MCPS students have access to ICET in class for purposes of developing STEM (science, technology, engineering, and math) proficiency?
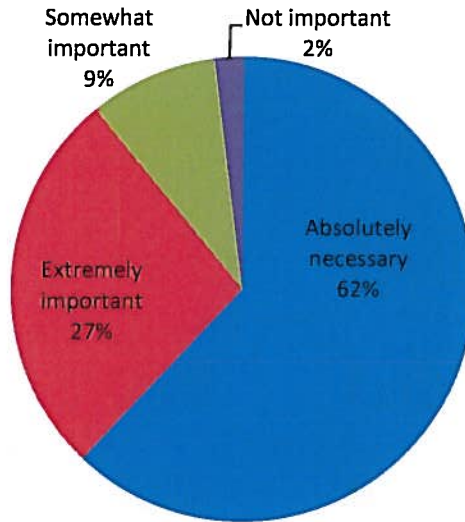
Value	Percent	Count
Absolutely necessary	61.7%	610
Extremely important	26.7%	264
Somewhat important	9.4%	93
Not important	2.1%	21
Total		988

Survey of MCPS Teachers and Specialists - November 2015 Regarding Interactive Classroom Educational Technology ("ICET")

5. ICET provides the ability to personalize instruction based on individual students' needs and capabilities. Is this ability to personalize instruction helpful in improving educational outcomes?


No, personalization is not a significant benefit. 3%

Yes, personalization is somewhat helpful; it offers additional treaching capabilities 43%

Yes, personalization is extremely helpful; without ICET I would not be able to individually challenge and support many of my students... 54.1%

Value	Percent	Count
Yes, personalization is extremely helpful; without ICET I would not be able to individually challenge and support many of my students	54.1%	541
Yes, personalization is somewhat helpful; it offers additional treaching capabilities	43.3%	433
No, personalization is not a significant benefit.	2.7%	27
Total		1,001

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

6. The MCPS Strategic Technology Plan 2014-2016 has the following primary goal for MCPS students: All learners will participate in technology enriched learning communities that inspire intellectual curiosity and prepare them with the knowledge and skills to excel in college and chosen careers in an evolving digital age. How important do you believe continued deployment of ICET will be for MCPS to meet this goal?
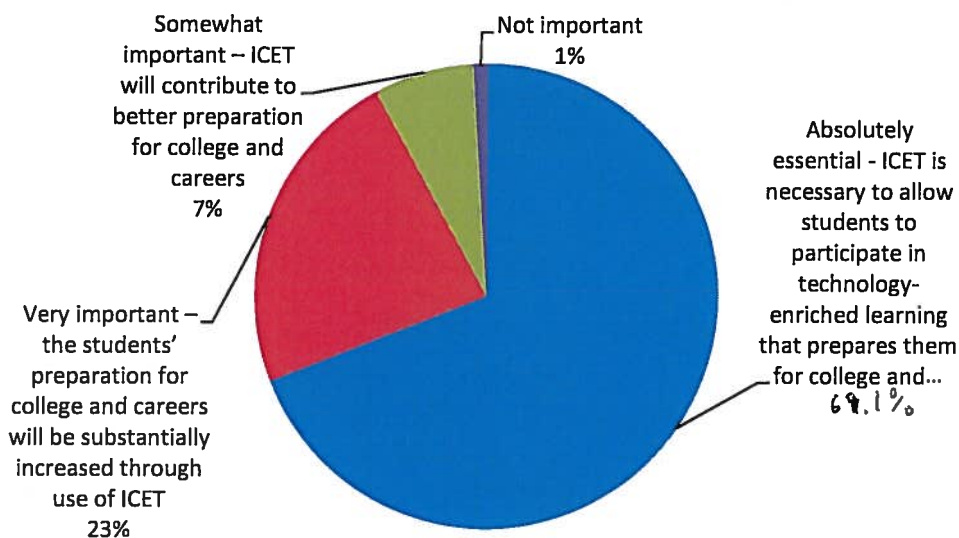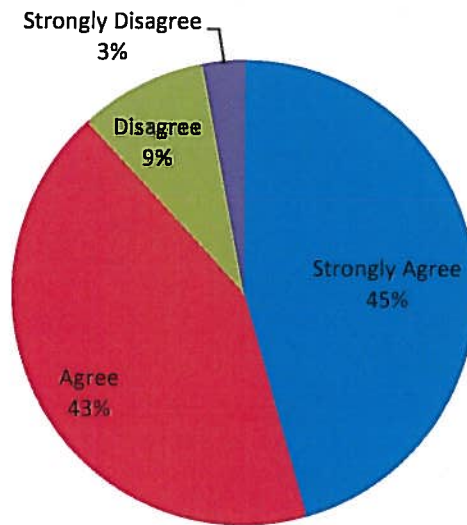

Value	Percent	Count
Absolutely essential - ICET is necessary to allow students to participate in technology-enriched learning that prepares them for college and careers	69.1%	691
Very important – the students' preparation for college and careers will be substantially increased through use of ICET	22.6%	226
Somewhat important – ICET will contribute to better preparation for college and careers	7.2%	72
Not important	1.1%	11
Total		1,000

**Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")**

## Classroom technology and efficiencies

1. Do you agree with the following: "Use of ICET creates substantial efficiencies for teachers in assigning, reviewing, and grading class work and homework"?

Value	Percent	Count
Strongly Agree	46.3%	462
Agree	42.7%	427
Disagree	8.5%	85
Strongly Disagree	2.5%	25
Total		999

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

2. Do you agree with the following: "Use of ICET creates substantial efficiencies in administering assessments and tests"?
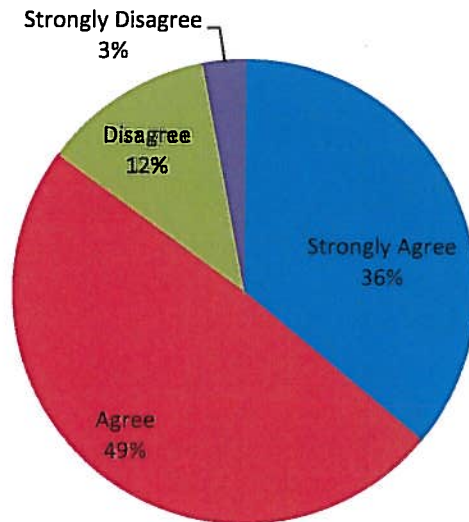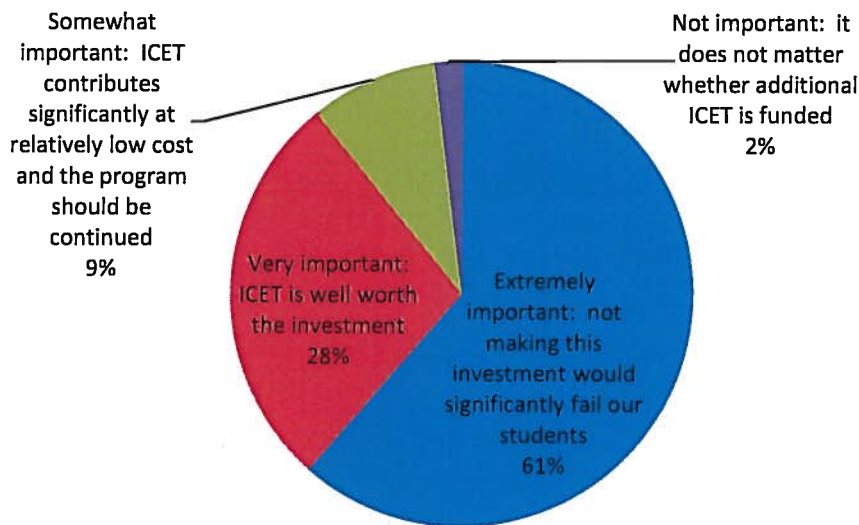

Value	Percent	Count
Strongly Agree	35.5%	353
Agree	49.4%	491
Disagree	11.8%	117
Strongly Disagree	3.3%	33
Total		994

Funding and impacts of potential program cuts

1. The amount of funding required to be appropriated by the Montgomery County Council for MCPS to continue the rollout of ICET to 8th grades and high schools is approximately $3 million per year over the next few years, as compared to a total MCPS Operating Budget of approximately $2.3 billion (approximately 1/10th of one percent). How important do you think it is that the County Council provide appropriations for ICET funding at this level going forward?
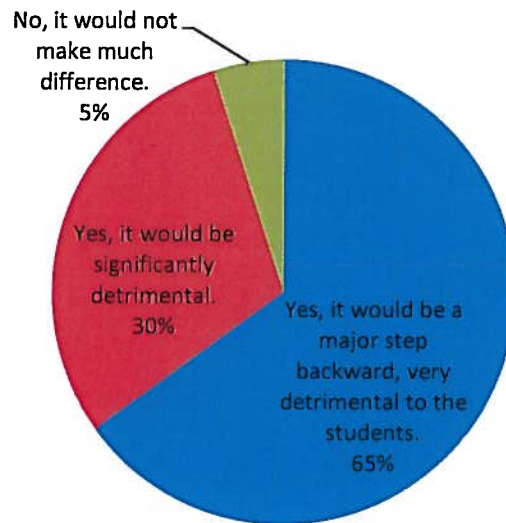

Value	Percent	Count
Extremely important: not making this investment would significantly fail our students	62.1%	623
Very important: ICET is well worth the investment	27.5%	276

**Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")**

Somewhat important: ICET contributes significantly at relatively low cost and the program should be continued	8.7%	87
Not important: it does not matter whether additional ICET is funded	1.7%	17
Total		1,003

**Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")**

2. For MCPS students who have used ICET over the past few years in grades 6 and 7, would it have a negative impact on their education if the ICET technology is no longer made available in grade 8 and in high school classes?
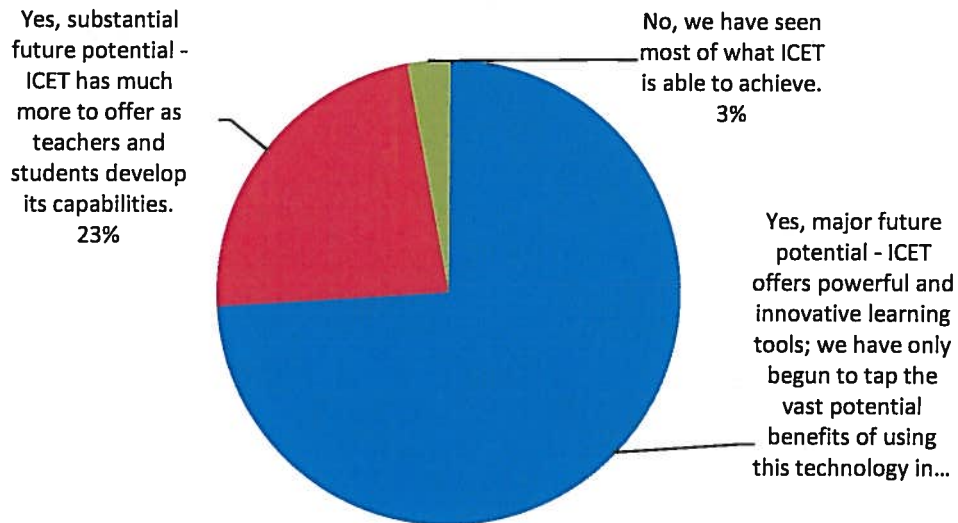

Value	Percent	Count
Yes, it would be a major step backward, very detrimental to the students.	64.9%	634
Yes, it would be significantly detrimental.	29.8%	291
No, it would not make much difference.	5.3%	52
Total		977

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

Future potential for classroom technology

1. ICET has only been in use in MCPS for less than two school years. Do you believe this technology has significant additional future potential?


Yes, substantial future potential - ICET has much more to offer as teachers and students develop its capabilities. 23%

No, we have seen most of what ICET is able to achieve. 3%

Yes, major future potential - ICET offers powerful and innovative learning tools; we have only begun to tap the vast potential benefits of using this technology in...

Value	Percent	Count
Yes, major future potential - ICET offers powerful and innovative learning tools; we have only begun to tap the vast potential benefits of using this technology in education.	73.8%	731
Yes, substantial future potential - ICET has much more to offer as teachers and students develop its capabilities.	23.0%	228
No, we have seen most of what ICET is able to achieve.	3.2%	32
Total		991

**Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")**

Schools and grade levels of survey respondents

1. What level is your school?
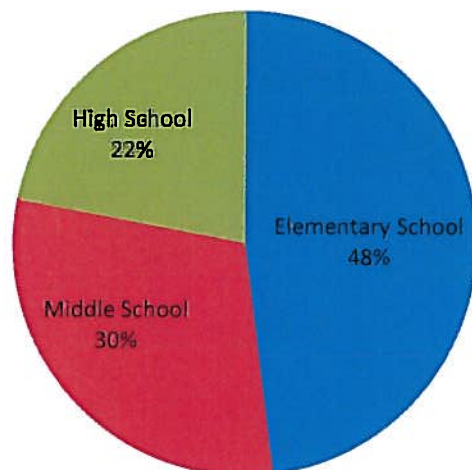
Value	Percent	Count
Elementary School	47.9%	510
Middle School	30.2%	321
High School	21.9%	233
Total		1,064

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

2. Please enter the grade level (K-12) you are primarily teaching - select from the drop down menu.
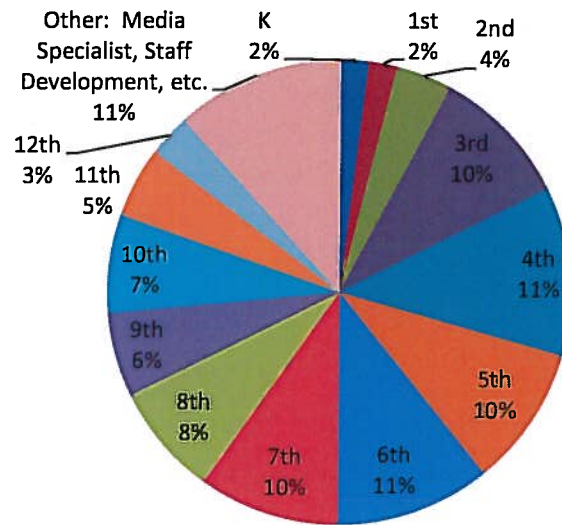
Value	Percent	Count
K	1.7%	18
1st	2.2%	23
2nd	4.1%	44
3rd	9.5%	101
4th	11.6%	123
5th	10.4%	111
6th	10.6%	113
7th	9.7%	103

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

8th	7.6%	81
9th	5.6%	59
10th	7.0%	74
11th	5.3%	56
12th	2.9%	31
Other: Media Specialist, Staff Development, etc.	11.9%	126
Total		1,063

Statistics

Sum	5,767.0
Average	6.3
StdDev	2.8
Max	12.0

3. At which Montgomery County School do you teach?

[COMPILED LIST OF SCHOOLS FROM WHICH RESPONSES RECEIVED BELOW]

ELEMENTARY SCHOOLS

Arcola Elementary School
Ashburton Elementary School
Bannockburn Elementary School
Bel Pre Elementary School
Bells Mill Elementary School
Belmont Elementary School
Bethesda Elementary School
Beverly Farms Elementary School
Bradley Hills Elementary School
Broad Acres Elementary School
Brooke Grove Elementary School
Brookhaven Elementary School
Brown Station Elementary School
Burning Tree Elementary School
Burtonsville Elementary School
Candlewood Elementary School
Cannon Road Elementary School
Carderock Springs Elementary School
Cashell Elementary School
Cedar Grove Elementary School
Clarksburg Elementary School
Clearspring Elementary School
Clopper Mill Elementary School
College Gardens Elementary School
Cresthaven Elementary School
Capt. James Daly Elementary School
Damascus Elementary School
Diamond Elementary School
Dr. Charles Drew Elementary School
Fallsmead Elementary School
Farmland Elementary School
Flower Valley Elementary School
Forest Knolls Elementary School
Fox Chapel Elementary School
Gaithersburg Elementary School
Galway Elementary School
Garrett Park Elementary School
Germantown Elementary School
Goshen Elementary School
Great Seneca Creek Elementary School
Greenwood Elementary School
Harmony Hills Elementary School
Highland Elementary School
Jackson Road Elementary School
Jones Lane Elementary School

Kemp Mill Elementary School
Kensington Parkwood Elementary School
Lake Seneca Elementary School
Lakewood Elementary School
Laytonsville Elementary School
Luxmanor Elementary School
Thurgood Marshall Elementary School
Maryvale Elementary School
Spark M. Matsunaga Elementary School
S. Christa McAuliffe Elementary School
Meadow Hall Elementary School
Mill Creek Towne Elementary School
Monocacy Elementary School
Oak View Elementary School
William Tyler Page Elementary School
Pine Crest Elementary School
Piney Branch Elementary School
Ritchie Park Elementary School
Rock Creek Forest Elementary School
Rolling Terrace Elementary School
Sequoyah Elementary School
Seven Locks Elementary School
Sargent Shriver Elementary School
Sligo Creek Elementary School
Somerset Elementary School
South Lake Elementary School
Stedwick Elementary School
Stone Mill Elementary School
Stonegate Elementary School
Strathmore Elementary School
Strawberry Knoll Elementary School
Summit Hall Elementary School
Travilah Elementary School
Twinbrook Elementary School
Washington Grove Elementary School
Waters Landing Elementary School
Watkins Mill Elementary School
Wayside Elementary School
Westbrook Elementary School
Westover Elementary School
Wheaton Woods Elementary School
Wilson Wims Elementary School
Woodfield Elementary School
Wyngate Elementary School

Survey of MCPS Teachers and Specialists - November 2015
Regarding Interactive Classroom Educational Technology ("ICET")

MIDDLE SCHOOLS

Argyle Middle School
Briggs Chaney Middle School
Cabin John Middle School
Roberto Clemente Middle School
Eastern Middle School
William H. Farquhar Middle School
Forest Oak Middle School
Gaithersburg Middle School
Herbert Hoover Middle School
Francis Scott Key Middle School
Martin Luther King Middle School
Kingsview Middle School
Lakelands Park Middle School
Col. E. Brooke Lee Middle School
A. Mario Loiederman Middle School
Montgomery Village Middle School
Neelsville Middle School
Newport Mill Middle School
North Bethesda Middle School
Parkland Middle School
Rosa M. Parks Middle School
Thomas W. Pyle Middle School
Ridgeview Middle School
Shady Grove Middle School
Silver Spring International Middle School
Sligo Middle School
Takoma Park Middle School
Tilden Middle School
Julius West Middle School
Westland Middle School
White Oak Middle School
Earle B. Wood Middle School

HIGH SCHOOLS

Montgomery Blair High School
Winston Churchill High School
Clarksburg High School
Damascus High School
Albert Einstein High School
Gaithersburg High School
Walter Johnson High School
Col. Zadok Magruder High School
Richard Montgomery High School
Northwest High School
Northwood High School
Paint Branch High School
Quince Orchard High School
Rockville High School
Sherwood High School
Springbrook High School
Watkins Mill High School
Wheaton High School
Walt Whitman High School
Thomas S. Wooton High School

MCPS EDUCATIONAL TECHNOLOGY TASK FORCE

MCPS Survey: Findings and Recommendations of the Teachers Review Committee, December 2015

Based on results of an MCPS-wide survey completed by 1,071 teachers and specialists from 142 MCPS schools regarding Chromebooks and Google Apps for Education – referred to as interactive classroom educational technologies ("ICET") – the Teachers Review Committee has reached the following consensus findings and recommendations:

1. In the initial deployment since 2014, ICET has been extremely powerful and productive for both students and teachers. Teachers and students with access are using the technology frequently and extensively, through a broad variety of applications. ICET massively improves classroom engagement and learning.

2. ICET is particularly effective in educating students with special needs, ESOL, and FARMS groups. Full and immediate access to this technology is fundamentally an issue of equity: it is imperative if MCPS is serious about closing the achievement gap.

3. Completing the rollout to all middle schools and high schools is necessary to meeting the MCPS mission of preparing students for college and careers. Stopping or delaying the program now would be significantly detrimental and fail MCPS students.

4. Teachers are seeing major cost savings that result from electronic learning. Expenses for textbooks, copying, and supplies are substantially reduced. With the ICET program, MCPS saved a surplus of $6.2 million on reduced textbooks and supplies this year alone.

5. MCPS teachers and specialists overwhelmingly favor continuing the rollout of the ICET program – 98% support funding at recent budgeted levels. Given the tremendous benefits across the entire MCPS community, no higher priority would justify withholding these funds.

6. The MCPS Board should commit now to a multi-year plan to complete the technology rollout without interruption. A process of stopping and delaying, forcing classes to compete for limited devices, is disrupting and counterproductive.

7. While the results achieved thus far have been extremely positive, MCPS has only begun to see the benefits of these advanced learning technologies. MCPS is on track to being a national leader in educational technology. We should fully embrace this program and redouble our commitment to ensuring the best possible educational resources for all MCPS students.