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Technology Usage Perception Survey (TUPS) Data

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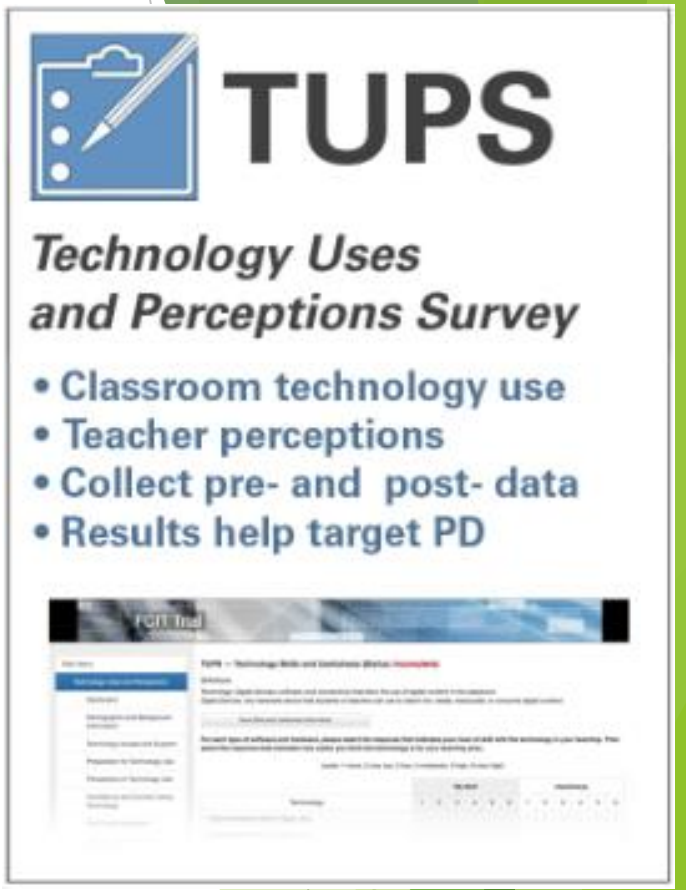
Our Story

S3 Technologies works closely with the Florida Center for Instructional Technology at the University of South Florida. We employ the FCIT Technology Integration Matrix in obtaining data from schools on technology use and assist the schools in drawing conclusions from that data.

At the minimum, S3 Technologies' Ed Tech Team can administer the TUPS, Technology Usage and Perceptions Survey, to all teachers within a school or district once a year in April/May. S3 will assist the school in analyzing that data and drawing conclusions from that data to be used to:

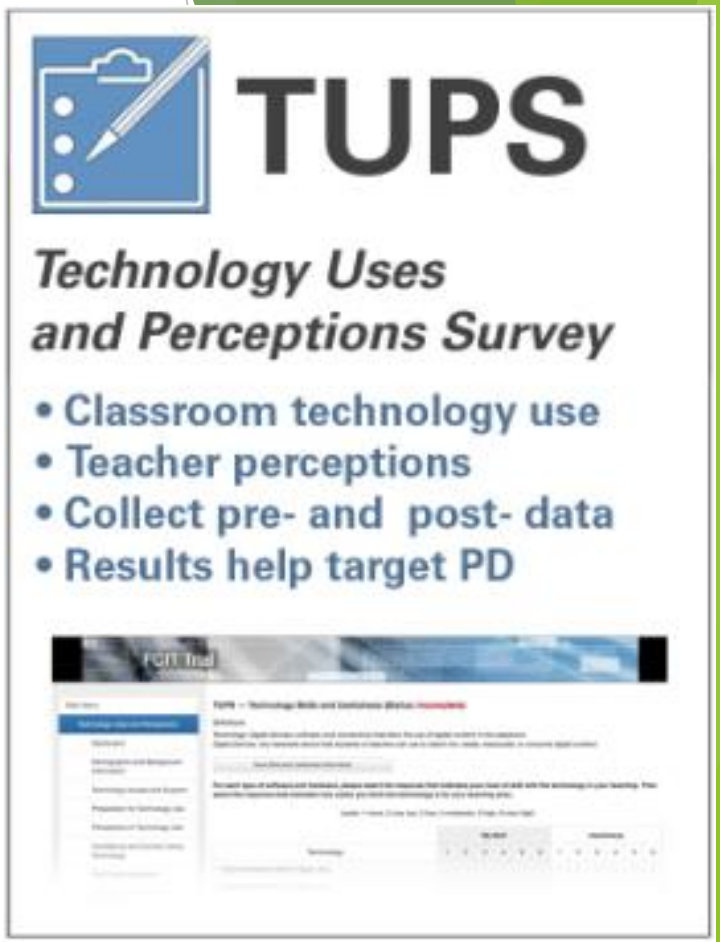
- **Collect baseline data for special initiatives**
  - *Example: Baseline data collected for a **grant** to help identify which devices are being used the most that service students with diverse needs.*
- **Inform technology purchase decisions**
  - *Example: Inform technology purchase decisions by indicating trends in use using greater **bandwidth** such as online learning.*
- **Identify professional development need**
  - *Example: Identify and prioritize professional development needs based on teacher comfort/skill and the impact the use of those tools has on student learning.*
- **Facilitate coaching in the use of instructional technology**
  - *Example: Coaching can be facilitated by identifying users of specific technologies who are confident in use with high levels of student use. Teacher Tech Leaders/Mentors can be identified and trained to support other teachers in implementing the TIM.*

That same data can then be analyzed year to year to show growth, effectiveness, trends, etc. This is powerful data when proving efficacy of a program, initiative, professional development.

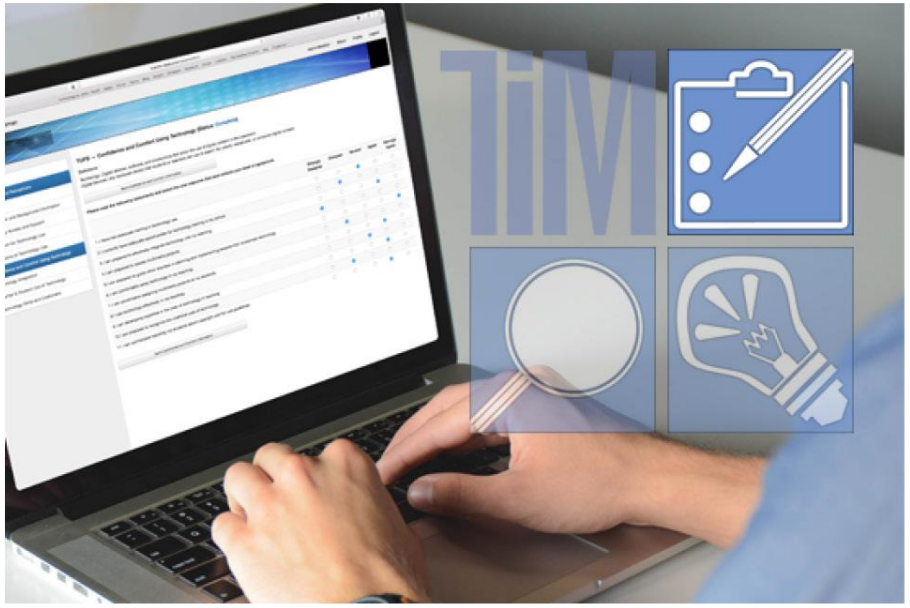


The (TUPS) online survey provides essential information about the current teacher use and perceptions of technology. The results can be used to collect baseline data for special initiatives, inform technology purchase decisions, identify professional development needs, and facilitate coaching in the use of instructional technology. **The TUPS looks at what teachers believe about the role of technology in the classroom, as well as their comfort and confidence with technology in general,** with pedagogy of technology, with a variety of different specific technologies, and it also asks about the frequency that they use those technologies and the frequency with which their students use those technologies…The survey sections include:

1. Technology Access and Support
2. Preparation for Technology Use
3. Perceptions of Technology Use
4. Confidence and Comfort Using Technology
5. Technology Integration
6. Teacher and Student Use of Technology
7. Technology Skills and Usefulness



The TUPS should be performed annually to provide needs assessments and goals for the upcoming year as well as to review effectiveness and growth for the previous year.



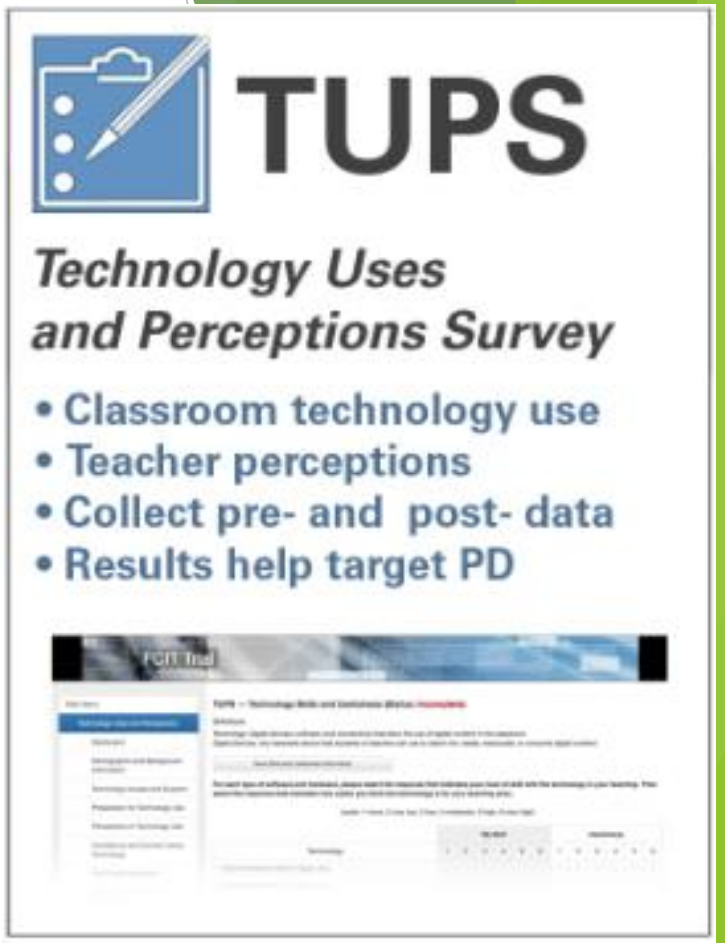
TUPS

Technology Uses and Perceptions Survey

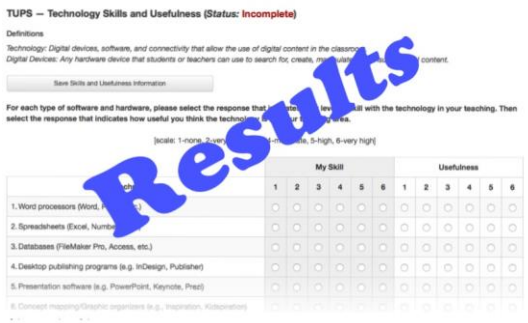
Gather data to support decision-making.

This online survey provides essential information about current teacher use and perceptions of technology. The results can be used to collect baseline data for special initiatives, inform technology purchase decisions, identify professional development needs, and facilitate coaching in the use of instructional technology.

- The (TUPS) online survey results are easy to read and interpret. The data is compiled in useful tables and graphs to facilitate the analysis and application of the invaluable data.
- Data can be aggregated at school, district, or higher level
- Data can support PD planning, peer coaching, grant evaluation, and more
- Each piece of data can be drilled down to see more specific data
- Additional correlational and other data is available for each section, to further facilitate the application of the data.



How to Use TUPS Data: Goal Setting & PD



TUPS rated low skill, high use

- ➔ Desktop Publishing
- ➔ Photo Editing
- ➔ Video Editing
- ➔ Authoring Tools
- ➔ Animation
- ➔ Drill and practice software
- ➔ Simulations
- ➔ Tutorials
- ➔ PBL
- ➔ Growth Mindset

Goals: Increase collaboration, goal setting, research & presentations/multimedia (constructive), possibly teacher websites (schoolspeak or weebly?)

- Research skills, copyright/fair use, & website eval → give teachers video/handouts to use
- Video & Presentations in the classroom
  - Great Resouce: https://sites.google.com/site/digitalstorysite/training/workshop-handouts
  - What apps do the iPads have?
  - Screen recording
  - Flipped lessons/blended learning
- Google—organization/collaboration
- Webpage design (leave w/ one already created)
- Khan Academy and other self-paced websites (use to flip, remediate, differentiate, etc)

How to Use TUPS Data: Purchasing

Student Devices

- iPads
- Chromebooks
- Windows or Mac
- Lab or Cart

Teacher Devices

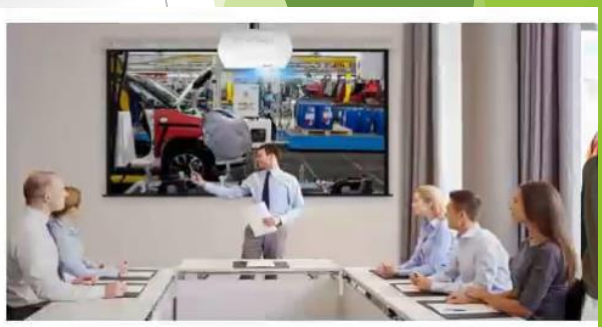
- Laptop/Desktop
- SmartBoard, Interactive Projector, Interactive Display,
- Document Camera
- Casting

Apps and Software

- Google vs MS Office 365
- Free vs Paid

Other Equipment

- Green Screen, Video Editing Equipment
- Makerspace Equipment
- AR/VR Equipment



How to Use TUPS Data: Funding

Data Driven

- Identify Needs/Gaps
- Show Growth in use and comfort
- Tie with TIM-O or TIM-C data to show effective use of funds

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Section by Section Examination of the Data Collected Through the TUPS

1. Technology Access and Support
2. Preparation for Technology Use
3. Perceptions of Technology Use
4. Confidence and Comfort Using Technology
5. Technology Integration
6. Teacher and Student Use of Technology
7. Technology Skills and Usefulness

Section 1: Technology Access and Support

- This gives us a baseline of what technology the teachers/students have access to
- This information drives purposeful purchasing, budgeting, and technology planning

2016

TUPS Section 1: Technology Access & Support		
Student access to digital devices		
For the following items, please indicate the level of technology that is available to students. Check all that apply.	%	#
We have shared digital devices in the classroom.	27%	4
We have one-to-one digital devices in the classroom.	27%	4
We have scheduled one-to-one access to digital devices in the classroom. (e.g. a cart of laptop computers is available for our classroom twice a week)	60%	9
We have scheduled one-to-one access in another location (computer lab media center etc.)	73%	11

Tech Specialists	Part-time	Full-time
How many tech specialists does your school have, if any?	1	1

2019

TUPS Section 1: Technology Access & Support		
Student access to digital devices		
For the following items, please indicate the level of technology that is available to students. Check all that apply.	%	#
We have shared digital devices in the classroom.	20%	5
We have one-to-one digital devices in the classroom.	68%	17
We have scheduled one-to-one access to digital devices in the classroom. (e.g. a cart of laptop computers is available for our classroom twice a week)	92%	23
We have scheduled one-to-one access in another location (computer lab media center etc.)	28%	7

Tech Specialists	Part-time	Full-time
How many tech specialists does your school have, if any?	2	1

Note the intentional shift at this school from a “lab” environment to devices available anytime, anywhere, to all teachers to use within their own curriculum.

Section 1: Technology Access and Support

- Questions about access to the **technology specialist** refer to your school-based technology support staff.
- This data gives us a good idea of what kind of support teachers have with using technology in their curriculum

2016

Access & Support	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I have adequate access to a technology specialist.	7% 1	13% 2	**27% 4**	**40% 6**	13% 2
2. The technology specialist adequately assists me in solving technical problems with hardware or software.	0% 0	7% 1	**47% 7**	**33% 5**	13% 2
3. The technology specialist is committed to helping teachers find solutions.	0% 0	7% 1	20% 3	**53% 8**	20% 3
4. The technology specialist responds promptly to my requests for assistance.	7% 1	13% 2	**27% 4**	**33% 5**	20% 3
5. The technology specialist models techniques to integrate technology into my teaching.	**27% 4**	**27% 4**	13% 2	20% 3	13% 2
6. The technology specialist provides professional development.	**27% 4**	**27% 4**	13% 2	**33% 5**	0% 0
7. The technology specialist adequately assists me in planning and implementing the use of technology in my teaching.	13% 2	**33% 5**	**27% 4**	13% 2	13% 2

2019

Access & Support	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I have adequate access to a technology specialist.	0% 0	4% 1	16% 4	**44% 11**	**36% 9**
2. The technology specialist adequately assists me in solving technical problems with hardware or software.	0% 0	0% 0	0% 0	**48% 12**	**52% 13**
3. The technology specialist is committed to helping teachers find solutions.	0% 0	0% 0	0% 0	24% 6	**76% 19**
4. The technology specialist responds promptly to my requests for assistance.	0% 0	0% 0	4% 1	**36% 9**	**60% 15**
5. The technology specialist models techniques to integrate technology into my teaching.	0% 0	4% 1	8% 2	**32% 8**	**56% 14**
6. The technology specialist provides professional development.	0% 0	0% 0	4% 1	20% 5	**76% 19**
7. The technology specialist adequately assists me in planning and implementing the use of technology in my teaching.	0% 0	4% 1	0% 0	**40% 10**	**56% 14**

Note the shift in perception of faculty on how well they are supported.

Section 2: Preparation for Technology Use

- The second section asks “To what extent do you think the following types of technology-related professional development would be beneficial to you?”
- This data reflects through which means current teachers have gained technology skills

2016

TUPS Section 2: Preparation for Technology Use										
Preparation for Technology Use For the following items, please select the one response that best reflects the extent to which you've acquired technology skills from the following sources.	not at all		to a small extent		to a moderate extent		to a great extent		entirely	
1. As a part of my undergraduate coursework	13%	2	**40%**	**6**	13%	2	**33%**	**5**	0%	0
2. In-service courses or workshops	13%	2	**27%**	**4**	**40%**	**6**	20%	3	0%	0
3. Independent learning (e.g. online tutorials or books)	0%	0	7%	1	**33%**	**5**	**60%**	**9**	0%	0
4. Distance learning courses	**67%**	**10**	7%	1	13%	2	13%	2	0%	0
5. Interaction with colleagues	0%	0	7%	1	**33%**	**5**	**53%**	**8**	7%	1
6. Interaction with others (e.g., friends, family, etc.)	0%	0	7%	1	**60%**	**9**	**33%**	**5**	0%	0

2019

TUPS Section 2: Preparation for Technology Use										
Preparation for Technology Use For the following items, please select the one response that best reflects the extent to which you've acquired technology skills from the following sources.	not at all		to a small extent		to a moderate extent		to a great extent		entirely	
1. As a part of my undergraduate coursework	8%	2	**52%**	**13**	**36%**	**9**	4%	1	0%	0
2. In-service courses or workshops	0%	0	20%	5	**52%**	**13**	**28%**	**7**	0%	0
3. Independent learning (e.g. online tutorials or books)	8%	2	**28%**	**7**	**36%**	**9**	**28%**	**7**	0%	0
4. Distance learning courses	**32%**	**8**	20%	5	**40%**	**10**	8%	2	0%	0
5. Interaction with colleagues	0%	0	**28%**	**7**	20%	5	**52%**	**13**	0%	0
6. Interaction with others (e.g., friends, family, etc.)	12%	3	24%	6	**32%**	**8**	**32%**	**8**	0%	0

Note the shift in use of In-Service, Independent, and Distance Learning professional development. Schools and districts can strategically plan PD in multiple formats. For instance, at this school every teacher (in 2018) participated in an online course, to give them the experience from a student's perspective of online instruction. They were then able to take this experience and apply it in their own classrooms.

Section 2: Preparation for Technology Use

- This data identifies what technology-related professional development teachers view as beneficial

2016

Professional Development To what extent do you think the following types of technology-related professional development would be beneficial to you?	not at all		to a small extent		to a moderate extent		to a great extent		entirely	
1. Introductory technology skills	**53%**	**8**	**33%**	**5**	13%	2	0%	0	0%	0
2. Professional productivity (e.g. gradebooks calendar address book)	13%	2	**40%**	**6**	20%	3	13%	2	0%	0
3. Instructional applications (e.g presentation digital content creation)	7%	1	**27%**	**4**	20%	3	**33%**	**5**	13%	2
4. Training on applications used by students	0%	0	**27%**	**4**	**27%**	**4**	**33%**	**5**	13%	2
5. Specialized training on pedagogy of technology integration	7%	1	20%	3	**40%**	**6**	20%	3	13%	2

2019

Professional Development To what extent do you think the following types of technology-related professional development would be beneficial to you?	not at all		to a small extent		to a moderate extent		to a great extent		entirely	
1. Introductory technology skills	**52%**	**13**	**44%**	**11**	0%	0	4%	1	0%	0
2. Professional productivity (e.g. gradebooks calendar address book)	**28%**	**7**	**44%**	**11**	16%	4	12%	3	0%	0
3. Instructional applications (e.g presentation digital content creation)	4%	1	16%	4	**56%**	**14**	20%	5	4%	1
4. Training on applications used by students	0%	0	8%	2	**44%**	**11**	**44%**	**11**	4%	1
5. Specialized training on pedagogy of technology integration	20%	5	**32%**	**8**	**40%**	**10**	8%	2	0%	0

Note the shift from introductory technology skills and pedagogical training to instructional and applications students use. At this school the first year was devoted to introductory skills and pedagogy. The ensuing years, we were able to focus on higher level technology integration.

Section 3: Perceptions of Technology Use

- This data identifies the role teachers perceive technology playing in how they teach, when and how they use technology, and more.

When compared year to year, note the shift in perception of importance for student devices and how the use of technology changes the role and pedagogy of the teacher.

2016

TUPS Section 3: Perceptions of Technology Use										
Perceptions of Technology Use	**Strongly Disagree**		**Disagree**		**Neutral**		**Agree**		**Strongly Agree**	
1. I would like every student in my class(es) to have access to a digital device.	7%	1	7%	1	13%	2	27%	4	47%	7
2. Technology skills are essential to my students' success in school.	7%	1	20%	3	7%	1	47%	7	20%	3
3. Technology skills are essential to my students' success in their future workplace.	0%	0	0%	0	0%	0	40%	6	60%	9
4. More training would increase my use of technology in my teaching.	0%	0	7%	1	20%	3	47%	7	27%	4
5. Technology makes my job easier.	0%	0	7%	1	27%	4	40%	6	27%	4
6. Technology changes my role as a teacher.	7%	1	20%	3	20%	3	20%	3	33%	5
7. I can help others solve technology problems.	0%	0	13%	2	40%	6	47%	7	0%	0
8. Technology enhances my teaching.	0%	0	0%	0	0%	0	73%	11	27%	4
9. Student use of technology enhances student performance.	7%	1	0%	0	33%	5	47%	7	13%	2
10. My use of technology enhances student performance.	0%	0	0%	0	33%	5	40%	6	27%	4
11. Technology should be used in all courses.	7%	1	20%	3	33%	5	20%	3	20%	3
12. I would like my students to be able to use technology more in their classes.	7%	1	7%	1	33%	5	33%	5	27%	4

2019

TUPS Section 3: Perceptions of Technology Use										
Perceptions of Technology Use	**Strongly Disagree**		**Disagree**		**Neutral**		**Agree**		**Strongly Agree**	
1. I would like every student in my class(es) to have access to a digital device.	0%	0	0%	0	12%	3	40%	10	48%	12
2. Technology skills are essential to my students' success in school.	0%	0	12%	3	20%	5	48%	12	20%	5
3. Technology skills are essential to my students' success in their future workplace.	0%	0	0%	0	4%	1	40%	10	56%	14
4. More training would increase my use of technology in my teaching.	0%	0	4%	1	24%	6	48%	12	24%	6
5. Technology makes my job easier.	0%	0	4%	1	36%	9	44%	11	16%	4
6. Technology changes my role as a teacher.	0%	0	8%	2	16%	4	60%	15	16%	4
7. I can help others solve technology problems.	8%	2	4%	1	36%	9	40%	10	12%	3
8. Technology enhances my teaching.	0%	0	4%	1	20%	5	56%	14	20%	5
9. Student use of technology enhances student performance.	0%	0	4%	1	16%	4	68%	17	12%	3
10. My use of technology enhances student performance.	0%	0	8%	2	28%	7	56%	14	8%	2
11. Technology should be used in all courses.	8%	2	16%	4	44%	11	28%	7	4%	1
12. I would like my students to be able to use technology more in their classes.	0%	0	0%	0	44%	11	40%	10	16%	4

Section 4: Confidence and Comfort Using Technology

- This data identifies how confident and comfortable a teacher is in using technology, which makes them more likely to use technology and to use it in new and innovative ways.

2016

TUPS Section 4: Confidence and Comfort Using Technology										
Comfort & Confidence	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
1. I have had adequate training in technology use.	7%	1	13%	2	27%	4	53%	8	0%	0
2. I currently have adequate opportunities for technology training in my school.	13%	2	33%	5	33%	5	20%	3	0%	0
3. I am prepared to effectively integrate technology into my teaching.	0%	0	40%	6	20%	3	40%	6	0%	0
4. I am prepared to assess multimedia projects.	7%	1	40%	6	20%	3	33%	5	0%	0
5. I am prepared to guide other teachers in planning and implementing lessons that incorporate technology.	0%	0	53%	8	20%	3	27%	4	0%	0
6. I am comfortable using technology in my teaching.	0%	0	7%	1	7%	1	53%	8	33%	5
7. I am comfortable assigning multimedia projects to my students.	0%	0	47%	7	33%	5	20%	3	0%	0
8. I use technology effectively in my teaching.	0%	0	20%	3	20%	3	53%	8	7%	1
9. I am developing expertise in the uses of technology in teaching.	7%	1	33%	5	20%	3	33%	5	7%	1
10. I am prepared to recognize the unethical uses of technology.	0%	0	20%	3	27%	4	27%	4	27%	4
11. I am comfortable teaching my students about copyright and fair use guidelines.	0%	0	40%	6	33%	5	13%	2	13%	2

2019

TUPS Section 4: Confidence and Comfort Using Technology										
Comfort & Confidence	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
1. I have had adequate training in technology use.	4%	1	8%	2	20%	5	60%	15	8%	2
2. I currently have adequate opportunities for technology training in my school.	0%	0	8%	2	8%	2	64%	16	20%	5
3. I am prepared to effectively integrate technology into my teaching.	4%	1	0%	0	12%	3	68%	17	16%	4
4. I am prepared to assess multimedia projects.	4%	1	4%	1	48%	12	44%	11	0%	0
5. I am prepared to guide other teachers in planning and implementing lessons that incorporate technology.	4%	1	24%	6	32%	8	36%	9	4%	1
6. I am comfortable using technology in my teaching.	0%	0	4%	1	16%	4	64%	16	16%	4
7. I am comfortable assigning multimedia projects to my students.	4%	1	16%	4	28%	7	48%	12	4%	1
8. I use technology effectively in my teaching.	4%	1	0%	0	40%	10	52%	13	4%	1
9. I am developing expertise in the uses of technology in teaching.	4%	1	4%	1	20%	5	68%	17	4%	1
10. I am prepared to recognize the unethical uses of technology.	4%	1	0%	0	16%	4	52%	13	28%	7
11. I am comfortable teaching my students about copyright and fair use guidelines.	0%	0	12%	3	24%	6	40%	10	24%	6

When compared year to year, note the shift in teacher confidence.

Section 4: Confidence and Comfort Using Technology

- The TUPS further correlates the data. In 2019 for this school, for instance, #6 Teacher Comfort with Technology in Teaching is highly core and #8 Use of Technology Effectively are highly correlated.

This means that the teachers need to feel comfortable in order to be effective in using technology.

2019

	comfort1	comfort2	comfort3	comfort4	comfort5	comfort6	comfort7	comfort8	comfort9	comfort10	comfort11
comfort1	1.00	0.38	0.57	0.26	0.29	0.40	0.25	0.43	0.47	0.30	-0.02
comfort2	0.38	1.00	0.77	0.45	0.50	0.44	0.58	0.58	0.63	0.46	0.26
comfort3	0.57	0.77	1.00	0.66	0.65	0.72	0.63	0.80	0.71	0.67	0.24
comfort4	0.26	0.45	0.66	1.00	0.69	0.61	0.67	0.71	0.68	0.49	0.28
comfort5	0.29	0.50	0.65	0.69	1.00	0.63	0.64	0.69	0.64	0.47	0.30
comfort6	0.40	0.44	0.72	0.61	0.63	1.00	0.73	0.77	0.61	0.58	0.22
comfort7	0.25	0.58	0.63	0.67	0.64	0.73	1.00	0.73	0.70	0.43	0.36
comfort8	0.43	0.58	0.80	0.71	0.69	0.77	0.73	1.00	0.78	0.71	0.23
comfort9	0.47	0.63	0.71	0.68	0.64	0.61	0.70	0.78	1.00	0.73	0.42
comfort10	0.30	0.46	0.67	0.49	0.47	0.58	0.43	0.71	0.73	1.00	0.52
comfort11	-0.02	0.26	0.24	0.28	0.30	0.22	0.36	0.23	0.42	0.52	1.00

Section 5: Technology Integration

- This data identifies the role teachers perceive technology playing in how they teach, when and how they use technology, and more.

2016

TUPS Section 5: Technology Integration												
How often do you integrate technology for the following purposes?	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Small group instruction	20%	3	40%	6	13%	2	7%	1	20%	3	0%	0
2. Individual instruction	20%	3	20%	3	27%	4	33%	5	0%	0	0%	0
3. Cooperative groups	[illegible]		27%	4	13%	2	20%	3	0%	0	0%	0
4. Independent learning	20%	3	7%	1	20%	3	40%	6	13%	2	0%	0
5. As an extension activity	40%	6	33%	5	7%	1	20%	3	0%	0	0%	0
6. As a reward	67%	10	13%	2	13%	2	0%	0	0%	0	7%	1
7. To tutor/ for remediation	40%	6	7%	1	13%	2	33%	5	7%	1	0%	0
8. As a research tool for my students	47%	7	13%	2	20%	3	7%	1	7%	1	7%	1
9. As a tool for students to use in planning and managing projects (individual and group)	73%	11	0%	0	13%	2	7%	1	7%	1	0%	0
10. As a productivity tool for my instruction (e.g. to create charts reports or other products)	13%	2	13%	2	27%	4	27%	4	13%	2	7%	1
11. As a student presentation tool (including multimedia)	40%	6	33%	5	7%	1	7%	1	7%	1	7%	1
12. Student discussion/communication	67%	10	0%	0	0%	0	20%	3	7%	1	7%	1
13. Instructional delivery	13%	2	7%	1	13%	2	20%	3	20%	3	27%	4
14. As a communication tool (e.g. email electronic discussion)	13%	2	7%	1	0%	0	13%	2	13%	2	53%	8
15. To create online content for my students (web pages blogs etc.)	[illegible]		7%	1	20%	3	13%	2	13%	2	0%	0
16. To assess student learning	20%	3	40%	6	20%	3	20%	3	0%	0	0%	0

2019

TUPS Section 5: Technology Integration												
How often do you integrate technology for the following purposes?	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Small group instruction	24%	6	48%	12	8%	2	20%	5	0%	0	0%	0
2. Individual instruction	16%	4	28%	7	32%	8	20%	5	4%	1	0%	0
3. Cooperative groups	16%	4	52%	13	12%	3	12%	3	8%	2	0%	0
4. Independent learning	12%	3	28%	7	28%	7	16%	4	16%	4	0%	0
5. As an extension activity	8%	2	44%	11	32%	8	16%	4	0%	0	0%	0
6. As a reward	56%	14	32%	8	8%	2	4%	1	0%	0	0%	0
7. To tutor/ for remediation	20%	5	36%	9	28%	7	16%	4	0%	0	0%	0
8. As a research tool for my students	4%	1	44%	11	36%	9	16%	4	0%	0	0%	0
9. As a tool for students to use in planning and managing projects (individual and group)	40%	10	32%	8	24%	6	4%	1	0%	0	0%	0
10. As a productivity tool for my instruction (e.g. to create charts reports or other products)	16%	4	36%	9	20%	5	16%	4	12%	3	0%	0
11. As a student presentation tool (including multimedia)	20%	5	44%	11	28%	7	4%	1	0%	0	4%	1
12. Student discussion/communication	48%	12	24%	6	16%	4	8%	2	4%	1	0%	0
13. Instructional delivery	4%	1	4%	1	16%	4	24%	6	16%	4	36%	9
14. As a communication tool (e.g. email electronic discussion)	12%	3	4%	1	0%	0	8%	2	24%	6	52%	13
15. To create online content for my students (web pages blogs etc.)	20%	5	32%	8	16%	4	16%	4	16%	4	0%	0
16. To assess student learning	4%	1	40%	10	20%	5	16%	4	20%	5	0%	0

Note the shift to regular use of a variety of methods. At this school this will change greatly this year, especially in discussion/communication which is something we have intentionally trained on.

Section 6.1: Teacher Use of Technology

- This data identifies the technologies teachers use and how often they use it. Again, this data can be used to drive budgeting and professional development.

2016

TUPS Section 6: Teacher Use of Technology														
For each type of software and hardware, please select the response that indicates how often YOU (THE TEACHER) USE the technology to complete school-related activities.	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Word processors (Word, Pages, etc.)	0%	0	7%	1	7%	1	20%	3	13%	2	53%	8
2. Spreadsheets (Excel, Numbers, etc.)	7%	1	33%	5	13%	2	7%	1	27%	4	13%	2
3. Databases (FileMaker Pro, Access, etc.)	87%	13	7%	1	7%	1	0%	0	0%	0	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	60%	9	20%	3	7%	1	7%	1	7%	1	0%	0
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	27%	4	27%	4	20%	3	7%	1	7%	1	13%	2
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	60%	9	27%	4	0%	0	7%	1	7%	1	0%	0
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
9. Photo editing (e.g, Photoshop, iPhoto)	73%	11	7%	1	7%	1	0%	0	13%	2	0%	0
10. Sound editing (e.g., Garageband, Audacity)	93%	14	7%	1	0%	0	0%	0	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	87%	13	13%	2	0%	0	0%	0	0%	0	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	93%	14	7%	1	0%	0	0%	0	0%	0	0%	0
13. Animation (e.g., iStopMotion, Frames)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	73%	11	13%	2	7%	1	0%	0	0%	0	7%	1
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	60%	9	20%	3	13%	2	0%	0	7%	1	0%	0
16. Simulations (e.g. frog dissections, science experiments)	80%	12	13%	2	7%	1	0%	0	0%	0	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	33%	5	27%	4	13%	2	7%	1	20%	3	0%	0
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	80%	12	0%	0	7%	1	0%	0	7%	1	7%	1
19. Email	0%	0	0%	0	0%	0	7%	1	13%	2	80%	12
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	0%	0	0%	0	7%	1	20%	3	73%	11
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	20%	3	13%	2	13%	2	13%	2	13%	2	27%	4
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	80%	12	0%	0	0%	0	0%	0	0%	0	20%	3
23. Video conferencing (e.g., Skype, Facetime)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
24. Desktop computer	33%	5	7%	1	0%	0	0%	0	13%	2	47%	7
25. Laptop computer	0%	0	0%	0	0%	0	13%	2	7%	1	80%	12
26. Tablet computer (e.g., iPad)	7%	1	7%	1	20%	3	27%	4	13%	2	27%	4
27. eReader (e.g., Kindle, Nook)	87%	13	0%	0	0%	0	0%	0	0%	0	13%	2
28. Digital camera	47%	7	40%	6	0%	0	0%	0	7%	1	7%	1
29. Digital video camera	73%	11	20%	3	0%	0	0%	0	7%	1	0%	0
30. Projector	13%	2	0%	0	0%	0	7%	1	7%	1	73%	11
31. DVD player	40%	6	13%	2	20%	3	7%	1	7%	1	13%	2
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	0%	0	7%	1	0%	0	7%	1	27%	4	60%	9

2019

TUPS Section 6: Teacher Use of Technology														
For each type of software and hardware, please select the response that indicates how often YOU (THE TEACHER) USE the technology to complete school-related activities.	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Word processors (Word, Pages, etc.)	0%	0	0%	0	4%	1	24%	6	16%	4	56%	14
2. Spreadsheets (Excel, Numbers, etc.)	8%	2	16%	4	20%	5	20%	5	24%	6	12%	3
3. Databases (FileMaker Pro, Access, etc.)	68%	17	12%	3	8%	2	8%	2	4%	1	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	60%	15	24%	6	8%	2	4%	1	4%	1	0%	0
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	8%	2	24%	6	8%	2	20%	5	24%	6	16%	4
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	60%	15	32%	8	4%	1	4%	1	0%	0	0%	0
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	64%	16	20%	5	8%	2	4%	1	0%	0	4%	1
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	76%	19	20%	5	0%	0	0%	0	0%	0	4%	1
9. Photo editing (e.g, Photoshop, iPhoto)	64%	16	20%	5	4%	1	12%	3	0%	0	0%	0
10. Sound editing (e.g., Garageband, Audacity)	76%	19	16%	4	8%	2	0%	0	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	56%	14	28%	7	12%	3	4%	1	0%	0	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	80%	20	12%	3	8%	2	0%	0	0%	0	0%	0
13. Animation (e.g., iStopMotion, Frames)	84%	21	12%	3	4%	1	0%	0	0%	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	56%	14	12%	3	12%	3	16%	4	0%	0	4%	1
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	52%	13	12%	3	28%	7	4%	1	0%	0	4%	1
16. Simulations (e.g. frog dissections, science experiments)	84%	21	16%	4	0%	0	0%	0	0%	0	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	64%	16	20%	5	12%	3	4%	1	0%	0	0%	0
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	52%	13	20%	5	4%	1	8%	2	4%	1	12%	3
19. Email	0%	0	0%	0	0%	0	0%	0	8%	2	92%	23
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	0%	0	0%	0	0%	0	8%	2	92%	23
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	0%	0	4%	1	16%	4	16%	4	28%	7	36%	9
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	56%	14	8%	2	4%	1	0%	0	16%	4	16%	4
23. Video conferencing (e.g., Skype, Facetime)	64%	16	24%	6	4%	1	4%	1	0%	0	4%	1
24. Desktop computer	72%	18	0%	0	4%	1	0%	0	4%	1	20%	5
25. Laptop computer	0%	0	0%	0	0%	0	0%	0	4%	1	96%	24
26. Tablet computer (e.g., iPad)	16%	4	8%	2	16%	4	28%	7	4%	1	28%	7
27. eReader (e.g., Kindle, Nook)	76%	19	12%	3	0%	0	4%	1	0%	0	8%	2
28. Digital camera	36%	9	12%	3	8%	2	16%	4	8%	2	20%	5
29. Digital video camera	64%	16	16%	4	4%	1	12%	3	4%	1	0%	0
30. Projector	32%	8	0%	0	4%	1	20%	5	4%	1	40%	10
31. DVD player	44%	11	36%	9	12%	3	4%	1	0%	0	4%	1
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	24%	6	0%	0	4%	1	16%	4	8%	2	48%	12

Note the shift to regular use of desktop to laptops. In this school's case, the tools the teachers are using for their day-to-day instruction have gradually begun to change. The big changes are seen in student use.

Section 6.2: Student Use of Technology

- This data identifies the technologies students use and how often they use it.

2016

TUPS Section 6.2: Student Use of Technology													
Select the response that indicates how often YOUR STUDENTS USE the software to complete school-related activities.	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Word processors (Word, Pages, etc.)	67%	10	7%	1	7%	1	7%	1	13%	2	0%	0
2. Spreadsheets (Excel, Numbers, etc.)	87%	13	0%	0	7%	1	7%	1	0%	0	0%	0
3. Databases (FileMaker Pro, Access, etc.)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	87%	13	0%	0	7%	1	7%	1	0%	0	0%	0
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	53%	8	33%	5	13%	2	0%	0	0%	0	0%	0
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	80%	12	13%	2	0%	0	7%	1	0%	0	0%	0
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	73%	11	13%	2	13%	2	0%	0	0%	0	0%	0
9. Photo editing (e.g, Photoshop, iPhoto)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
10. Sound editing (e.g., Garageband, Audacity)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
13. Animation (e.g., iStopMotion, Frames)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	40%	6	20%	3	13%	2	0%	0	20%	3	7%	1
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	40%	6	20%	3	20%	3	13%	2	7%	1	0%	0
16. Simulations (e.g. frog dissections, science experiments)	80%	12	20%	3	0%	0	0%	0	0%	0	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	33%	5	27%	4	13%	2	7%	1	20%	3	0%	0
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	93%	14	0%	0	7%	1	0%	0	0%	0	0%	0
19. Email	93%	14	7%	1	0%	0	0%	0	0%	0	0%	0
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	47%	7	20%	3	13%	2	0%	0	0%	0	20%	3
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	67%	10	7%	1	0%	0	7%	1	7%	1	13%	2
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	93%	14	0%	0	0%	0	0%	0	0%	0	7%	1
23. Video conferencing (e.g., Skype, Facetime)	93%	14	0%	0	0%	0	7%	1	0%	0	0%	0
24. Desktop computer	60%	9	20%	3	7%	1	7%	1	7%	1	0%	0
25. Laptop computer	60%	9	7%	1	7%	1	0%	0	7%	1	20%	3
26. Tablet computer (e.g., iPad)	27%	4	7%	1	27%	4	27%	4	13%	2	0%	0
27. eReader (e.g., Kindle, Nook)	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
28. Digital camera	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
29. Digital video camera	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
30. Projector	80%	12	0%	0	0%	0	0%	0	0%	0	20%	3
31. DVD player	100%	15	0%	0	0%	0	0%	0	0%	0	0%	0
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	0%	0	20%	3	20%	3	7%	1	7%	1	47%	7

2019

TUPS Section 6.2: Student Use of Technology													
Select the response that indicates how often YOUR STUDENTS USE the software to complete school-related activities.	not at all		once per month or less		once per week		several times per week		every day		multiple times per day	
1. Word processors (Word, Pages, etc.)	20%	5	16%	4	24%	6	20%	5	8%	2	12%	3
2. Spreadsheets (Excel, Numbers, etc.)	56%	14	28%	7	0%	0	4%	1	8%	2	4%	1
3. Databases (FileMaker Pro, Access, etc.)	80%	20	8%	2	4%	1	4%	1	4%	1	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	56%	14	28%	7	4%	0	4%	1	8%	2	4%	1
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	36%	9	32%	8	20%	5	4%	1	4%	1	4%	1
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	72%	18	12%	3	8%	2	4%	1	0%	0	0%	0
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	76%	19	16%	4	8%	2	0%	0	0%	0	0%	0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	60%	15	24%	6	4%	1	12%	3	0%	0	0%	0
9. Photo editing (e.g, Photoshop, iPhoto)	84%	21	8%	2	8%	2	0%	0	0%	0	0%	0
10. Sound editing (e.g., Garageband, Audacity)	80%	20	16%	4	4%	1	0%	0	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	56%	14	32%	8	8%	2	4%	1	0%	0	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	72%	18	20%	5	0%	0	8%	2	0%	0	0%	0
13. Animation (e.g., iStopMotion, Frames)	84%	21	16%	4	0%	0	0%	0	0%	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	32%	8	24%	6	16%	4	24%	6	4%	1	4%	1
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	36%	9	20%	5	28%	7	12%	3	0%	0	4%	1
16. Simulations (e.g. frog dissections, science experiments)	80%	20	20%	5	0%	0	0%	0	0%	0	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	64%	16	24%	6	0%	0	8%	2	4%	1	0%	0
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	80%	20	4%	1	8%	2	0%	0	4%	1	4%	1
19. Email	96%	24	0%	0	0%	0	0%	0	4%	1	0%	0
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	12%	3	12%	3	32%	8	16%	4	8%	2	20%	5
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	24%	6	16%	4	36%	9	12%	3	12%	3	12%	3
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	92%	23	4%	1	4%	1	0%	0	0%	0	0%	0
23. Video conferencing (e.g., Skype, Facetime)	88%	22	8%	2	4%	1	0%	0	0%	0	0%	0
24. Desktop computer	92%	23	4%	1	4%	1	0%	0	0%	0	0%	0
25. Laptop computer	28%	7	12%	3	20%	5	16%	4	4%	1	20%	5
26. Tablet computer (e.g., iPad)	16%	4	16%	4	24%	6	32%	8	4%	1	8%	2
27. eReader (e.g., Kindle, Nook)	96%	24	0%	0	0%	0	4%	1	0%	0	0%	0
28. Digital camera	80%	20	12%	3	4%	1	4%	1	0%	0	0%	0
29. Digital video camera	88%	22	8%	2	0%	0	4%	1	0%	0	0%	0
30. Projector	68%	17	8%	2	4%	1	8%	2	0%	0	12%	3
31. DVD player	80%	20	20%	5	0%	0	0%	0	0%	0	0%	0
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	16%	4	16%	4	0%	0	28%	7	20%	5	20%	5

Note there are several technologies that were not used by any students in 2016. Students are using a wider variety of technology and more regularly. Targeted coaching and professional development assisted teachers in incorporating these new tools into student learning.

Section 7.1: Teacher Skills

- This data identifies the level of skills teachers perceive they have with the various types of hardware and software.

2016

TUPS Section 7: Teacher Skills												
For each type of software and hardware, please select the response that indicates your level of skill with the technology in your teaching.	none		very low		low		moderate		high		very high	
1. Word processors (Word, Pages, etc.)	0%	0	0%	0	0%	0	13%	2	27%	4	60%	9
2. Spreadsheets (Excel, Numbers, etc.)	0%	0	7%	1	20%	3	33%	5	20%	3	20%	3
3. Databases (FileMaker Pro, Access, etc.)	60%	9	13%	2	20%	3	7%	1	0%	0	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	40%	6	7%	1	7%	1	20%	3	13%	2	13%	2
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	7%	1	13%	2	7%	1	13%	2	47%	7	13%	2
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	40%	6	20%	3	13%	2	20%	3	7%	1	0%	0
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	87%	13	7%	1	7%	1	0%	0	0%	0	0%	0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	40%	6	20%	3	20%	3	7%	1	7%	1	7%	1
9. Photo editing (e.g, Photoshop, iPhoto)	27%	4	20%	3	7%	1	33%	5	7%	1	7%	1
10. Sound editing (e.g., Garageband, Audacity)	53%	8	40%	6	7%	1	0%	0	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	40%	6	27%	4	20%	3	13%	2	0%	0	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	60%	9	33%	5	7%	1	0%	0	0%	0	0%	0
13. Animation (e.g., iStopMotion, Frames)	80%	12	20%	3	0%	0	0%	0	0%	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	20%	3	7%	1	33%	5	7%	1	13%	2	20%	3
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	20%	3	13%	2	20%	3	20%	3	27%	4	0%	0
16. Simulations (e.g. frog dissections, science experiments)	47%	7	13%	2	20%	3	13%	2	7%	1	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	13%	2	27%	4	13%	2	40%	6	7%	1	0%	0
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	53%	8	7%	1	13%	2	27%	4	0%	0	0%	0
19. Email	0%	0	0%	0	0%	0	0%	0	27%	4	73%	11
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	0%	0	0%	0	7%	1	33%	5	60%	9
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	0%	0	7%	1	13%	2	33%	5	27%	4	20%	3
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	20%	3	20%	3	7%	1	20%	3	27%	4	7%	1
23. Video conferencing (e.g., Skype, Facetime)	13%	2	33%	5	7%	1	20%	3	13%	2	13%	2
24. Desktop computer	0%	0	0%	0	0%	0	0%	0	47%	7	53%	8
25. Laptop computer	0%	0	0%	0	7%	1	13%	2	27%	4	53%	8
26. Tablet computer (e.g., iPad)	0%	0	7%	1	13%	2	7%	1	27%	4	47%	7
27. eReader (e.g., Kindle, Nook)	20%	3	13%	2	7%	1	7%	1	20%	3	33%	5
28. Digital camera	7%	1	0%	0	7%	1	33%	5	13%	2	40%	6
29. Digital video camera	7%	1	13%	2	7%	1	20%	3	27%	4	27%	4
30. Projector	7%	1	0%	0	13%	2	27%	4	13%	2	40%	6
31. DVD player	0%	0	0%	0	7%	1	13%	2	27%	4	53%	8
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	0%	0	7%	1	0%	0	40%	6	20%	3	33%	5

2019

TUPS Section 7: Teacher Skills												
For each type of software and hardware, please select the response that indicates your level of skill with the technology in your teaching.	none		very low		low		moderate		high		very high	
1. Word processors (Word, Pages, etc.)	0%	0	0%	0	0%	0	20%	5	28%	7	52%	13
2. Spreadsheets (Excel, Numbers, etc.)	0%	0	4%	1	4%	1	36%	9	32%	8	24%	6
3. Databases (FileMaker Pro, Access, etc.)	36%	9	20%	5	28%	7	16%	4	0%	0	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	32%	8	8%	2	20%	5	24%	6	4%	1	12%	3
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	0%	0	0%	0	4%	1	28%	7	36%	9	32%	8
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	24%	6	24%	6	20%	5	[illegible]	5	8%	2	4%	1
7. Web publishing programs (e.g., DreamWeaver, Nvu, KampoZer)	24%	6	12%	3	20%	5	28%	[illegible]	12%	3	4%	1
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	28%	7	16%	4	[illegible]	5	16%	4	[illegible]	3	8%	2
9. Photo editing (e.g, Photoshop, iPhoto)	16%	4	32%	8	20%	5	28%	7	4%	1	0%	0
10. Sound editing (e.g., Garageband, Audacity)	52%	13	12%	3	24%	6	12%	3	0%	0	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	20%	5	20%	5	28%	7	28%	7	4%	1	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	36%	9	20%	5	12%	3	24%	6	8%	2	0%	0
13. Animation (e.g., iStopMotion, Frames)	52%	13	16%	4	[illegible]	5	12%	3	[illegible]	0	0%	0
14. Drill and practice software (e.g. practice for spelling or math)	12%	3	8%	2	20%	5	28%	7	12%	3	20%	5
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	20%	5	4%	1	16%	4	[illegible]	6	28%	7	8%	2
16. Simulations (e.g. frog dissections, science experiments)	40%	10	20%	5	20%	5	12%	3	8%	2	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	32%	8	4%	1	12%	3	28%	7	12%	3	12%	3
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	24%	6	8%	2	12%	3	24%	6	32%	8	0%	0
19. Email	0%	0	0%	0	0%	0	4%	1	20%	5	76%	19
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	0%	0	0%	0	16%	4	24%	6	60%	15
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	0%	0	0%	0	20%	5	24%	6	32%	8	24%	6
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	20%	5	12%	3	8%	[illegible]	[illegible]	[illegible]	16%	4	28%	7
23. Video conferencing (e.g., Skype, Facetime)	20%	5	8%	2	8%	[illegible]	32%	8	24%	6	8%	2
24. Desktop computer	8%	2	0%	0	12%	3	8%	2	28%	7	44%	11
25. Laptop computer	0%	0	0%	0	4%	1	12%	3	36%	9	48%	12
26. Tablet computer (e.g., iPad)	0%	0	4%	1	12%	3	16%	4	24%	6	44%	11
27. eReader (e.g., Kindle, Nook)	24%	6	0%	0	20%	5	16%	4	12%	3	28%	7
28. Digital camera	8%	2	8%	2	0%	0	40%	10	12%	3	32%	8
29. Digital video camera	12%	3	4%	1	20%	5	24%	6	12%	3	28%	7
30. Projector	12%	3	0%	0	12%	3	16%	4	24%	6	36%	9
31. DVD player	4%	1	0%	0	8%	2	16%	4	24%	6	48%	12
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	4%	1	4%	1	8%	2	24%	6	24%	6	36%	9

Note the increase in skill especially on targeted technology such as video calls, photo editing, video editing, web publishing, databases, and other tools besides web searching and word processing.

Section 7.2: Perceived Usefulness Skills

- This data measures the teacher perception of usefulness for the same hardware and software as 7.1

2016

TUPS Section 7.2: Perceived Usefulness Select the response that indicates how useful you think the technology is for your teaching area.	none	very low	low	moderate	high	very high
1. Word processors (Word, Pages, etc.)	0% 0	0% 0	0% 0	27% 4	33% 5	40% 6
2. Spreadsheets (Excel, Numbers, etc.)	13% 2	13% 2	13% 2	33% 5	13% 2	13% 2
3. Databases (FileMaker Pro, Access, etc.)	67% 10	7% 1	0% 0	20% 3	7% 1	0% 0
4. Desktop publishing programs (e.g. InDesign, Publisher)	40% 6	7% 1	13% 2	20% 3	7% 1	13% 2
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	13% 2	7% 1	13% 2	27% 4	27% 4	13% 2
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	47% 7	13% 2	0% 0	27% 4	0% 0	13% 2
7. Web publishing programs (e.g., DreamWeaver, Nvu, KompoZer)	80% 12	0% 0	0% 0	13% 2	7% 1	0% 0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	47% 7	13% 2	27% 4	7% 1	7% 1	0% 0
9. Photo editing (e.g, Photoshop, iPhoto)	47% 7	20% 3	7% 1	13% 2	13% 2	0% 0
10. Sound editing (e.g., Garageband, Audacity)	40% 6	20% 3	13% 2	20% 3	7% 1	0% 0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	33% 5	13% 2	0% 0	47% 7	7% 1	0% 0
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	47% 7	7% 1	7% 1	27% 4	13% 2	0% 0
13. Animation (e.g., iStopMotion, Frames)	47% 7	13% 2	13% 2	20% 3	7% 1	0% 0
14. Drill and practice software (e.g. practice for spelling or math)	13% 2	0% 0	27% 4	33% 5	13% 2	13% 2
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	13% 2	20% 3	20% 3	20% 3	7% 1	20% 3
16. Simulations (e.g. frog dissections, science experiments)	33% 5	7% 1	7% 1	13% 2	7% 1	33% 5
17. Tutorials (e.g., programs that teach specific subject matter)	13% 2	7% 1	13% 2	27% 4	20% 3	20% 3
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	47% 7	7% 1	7% 1	13% 2	7% 1	20% 3
19. Email	27% 4	7% 1	13% 2	7% 1	20% 3	27% 4
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	7% 1	0% 0	7% 1	13% 2	33% 5	40% 6
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	20% 3	0% 0	7% 1	20% 3	13% 2	40% 6
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	67% 10	13% 2	0% 0	13% 2	7% 1	0% 0
23. Video conferencing (e.g., Skype, Facetime)	47% 7	13% 2	13% 2	13% 2	13% 2	0% 0
24. Desktop computer	13% 2	0% 0	13% 2	13% 2	27% 4	33% 5
25. Laptop computer	0% 0	0% 0	7% 1	20% 3	27% 4	47% 7
26. Tablet computer (e.g., iPad)	0% 0	0% 0	0% 0	33% 5	20% 3	47% 7
27. eReader (e.g., Kindle, Nook)	40% 6	7% 1	7% 1	7% 1	13% 2	27% 4
28. Digital camera	27% 4	20% 3	0% 0	27% 4	13% 2	13% 2
29. Digital video camera	20% 3	13% 2	13% 2	33% 5	13% 2	7% 1
30. Projector	20% 3	0% 0	13% 2	27% 4	7% 1	33% 5
31. DVD player	13% 2	27% 4	20% 3	13% 2	7% 1	20% 3
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	0% 0	0% 0	7% 1	33% 5	7% 1	53% 8

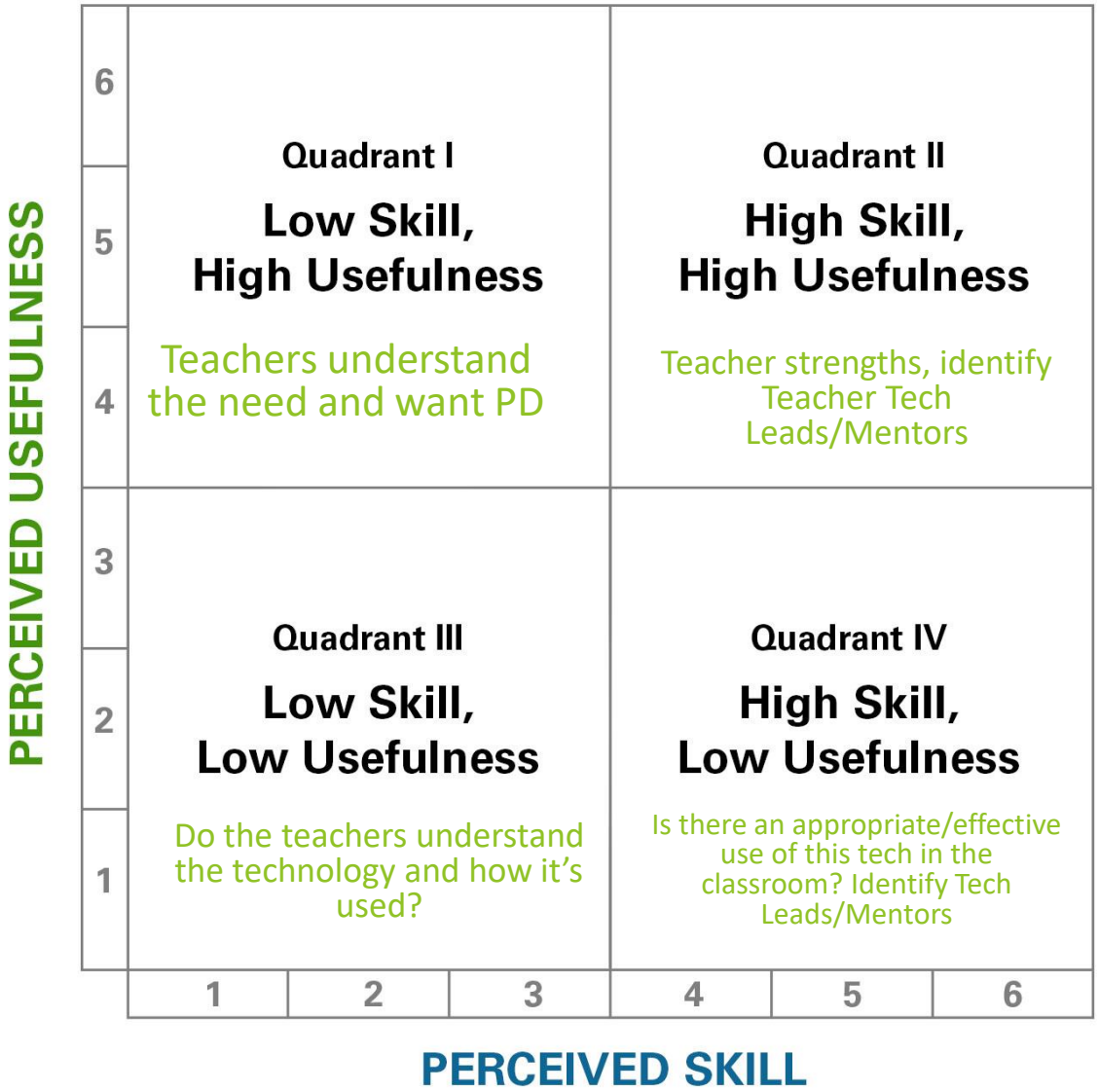
2019

TUPS Section 7.2: Perceived Usefulness Select the response that indicates how useful you think the technology is for your teaching area.	none	very low	low	moderate	high	very high
1. Word processors (Word, Pages, etc.)	4% 1	0% 0	8% 2	4% 1	28% 7	56% 14
2. Spreadsheets (Excel, Numbers, etc.)	12% 3	0% 0	16% 4	16% 4	40% 10	16% 4
3. Databases (FileMaker Pro, Access, etc.)	36% 9	24% 6	12% 3	16% 4	8% 2	4% 1
4. Desktop publishing programs (e.g. InDesign, Publisher)	36% 9	12% 3	4% 1	24% 6	12% 3	12% 3
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	4% 1	0% 0	8% 2	28% 7	32% 8	28% 7
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	16% 4	12% 3	28% 7	20% 5	16% 4	8% 2
7. Web publishing programs (e.g., DreamWeaver, Nvu, KompoZer)	32% 8	8% 2	24% 6	20% 5	8% 2	8% 2
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	36% 9	12% 3	16% 4	12% 3	16% 4	8% 2
9. Photo editing (e.g, Photoshop, iPhoto)	32% 8	16% 4	24% 6	16% 4	4% 1	8% 2
10. Sound editing (e.g., Garageband, Audacity)	36% 9	12% 3	28% 7	16% 4	8% 2	0% 0
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	20% 5	4% 1	8% 2	40% 10	20% 5	8% 2
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	28% 7	20% 5	12% 3	16% 4	16% 4	8% 2
13. Animation (e.g., iStopMotion, Frames)	36% 9	8% 2	32% 8	12% 3	8% 2	4% 1
14. Drill and practice software (e.g. practice for spelling or math)	12% 3	4% 1	20% 5	36% 9	24% 6	4% 1
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	12% 3	4% 1	28% 7	36% 9	16% 4	4% 1
16. Simulations (e.g. frog dissections, science experiments)	28% 7	0% 0	24% 6	24% 6	20% 5	4% 1
17. Tutorials (e.g., programs that teach specific subject matter)	24% 6	4% 1	16% 4	24% 6	24% 6	8% 2
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	32% 8	12% 3	12% 3	24% 6	16% 4	4% 1
19. Email	28% 7	0% 0	8% 2	0% 0	24% 6	40% 10
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0% 0	0% 0	4% 1	16% 4	36% 9	44% 11
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	12% 3	4% 1	16% 4	12% 3	28% 7	28% 7
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	56% 14	20% 5	8% 2	12% 3	0% 0	4% 1
23. Video conferencing (e.g., Skype, Facetime)	36% 9	16% 4	8% 2	24% 6	12% 3	4% 1
24. Desktop computer	40% 10	4% 1	8% 2	24% 6	16% 4	8% 2
25. Laptop computer	0% 0	0% 0	0% 0	20% 5	28% 7	52% 13
26. Tablet computer (e.g., iPad)	0% 0	0% 0	4% 1	20% 5	44% 11	32% 8
27. eReader (e.g., Kindle, Nook)	44% 11	20% 5	20% 5	12% 3	4% 1	0% 0
28. Digital camera	8% 2	12% 3	4% 1	32% 8	16% 4	28% 7
29. Digital video camera	12% 3	8% 2	24% 6	32% 8	12% 3	12% 3
30. Projector	20% 5	4% 1	16% 4	20% 5	12% 3	28% 7
31. DVD player	20% 5	12% 3	20% 5	24% 6	16% 4	8% 2
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	0% 0	0% 0	20% 5	16% 4	24% 6	40% 10

A year to year comparison of data is helpful in seeing teachers' perception of their skills increase, but this data has more of a story to tell.

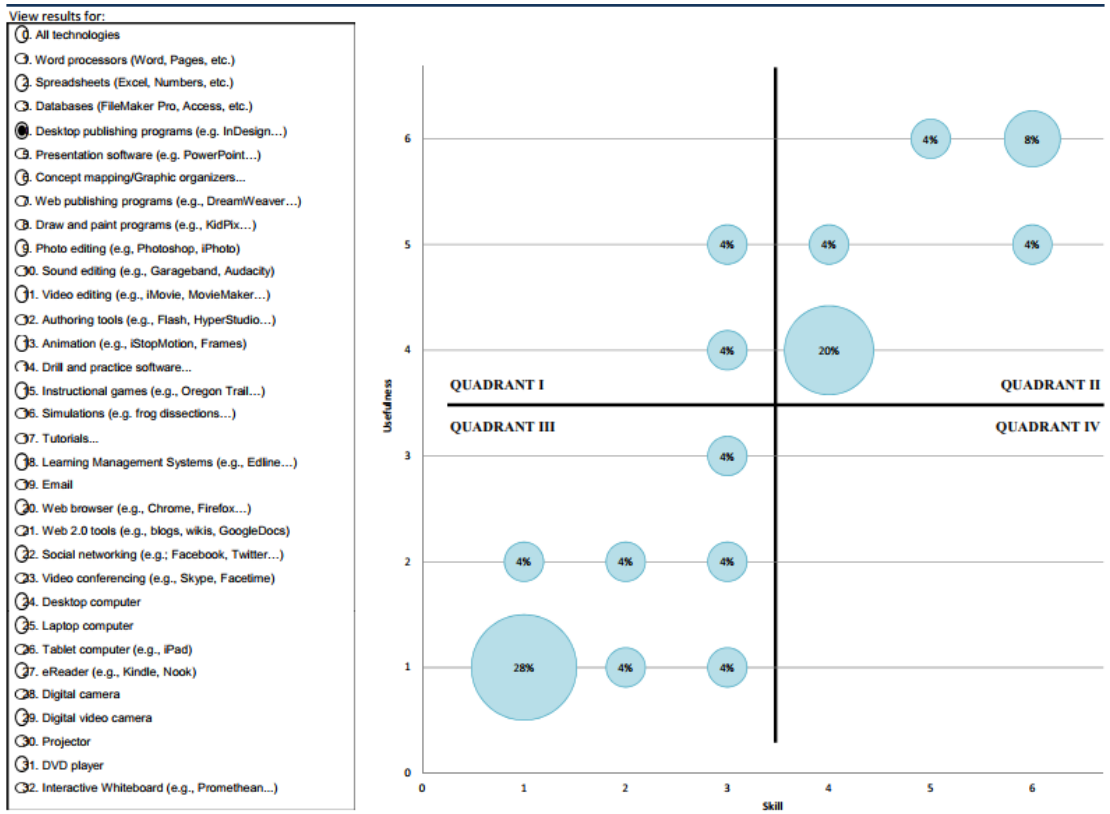
Section 7: Analysis

- The data from section 7.1 and 7.2 can easily be analyzed using the TUPS scale of usefulness and skill. This data can help decide which faculty need which professional development and the motivating factors behind the PD.



Comparison of Section 7 Data

- A comparison of teacher skill with teacher perceived usefulness, gives the school/district data on what skills teachers are lacking in order to utilize tech they feel is effective. This comparison can even be broken down by each type of technology.



In this instance, teachers who are skilled at using desktop publishing also see it as a valuable skill. Whereas, teachers who are not skilled in desktop publishing do not see it as an essential skill. This helps us frame professional development around why and how to use desktop publishing while teaching the skills.

Section 7 Analysis: Technology by Quadrant

- Using this data can help prioritize professional development.
- When compared year to year, the data can show the effectiveness of professional development and goal planning.

2016

TUPS REPORT 7.2 : Quadrant Summary								
Technology	Quadrant 1		Quadrant 2		Quadrant 3		Quadrant 4	
	low skill, high use		high skill,high use		low skill, low use		high skill, low use	
1. Word processors (Word, Pages, etc.)	0%	0	100%	15	0%	0	0%	0
2. Spreadsheets (Excel, Numbers, etc.)	7%	1	53%	8	20%	3	20%	3
3. Databases (FileMaker Pro, Access, etc.)	20%	3	7%	1	73%	11	0%	0
4. Desktop publishing programs (e.g. InDesign, Publisher)	13%	2	27%	4	40%	6	20%	3
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	13%	2	53%	8	13%	2	20%	3
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	20%	3	20%	3	53%	8	7%	1
7. Web publishing programs (e.g., DreamWeaver, Nvu, KompoZer)	20%	3	0%	0	80%	12	0%	0
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)		3	0%	0	67%	10	20%	3
9. Photo editing (e.g, Photoshop, iPhoto)	20%	3	7%	1	33%	5	40%	6
10. Sound editing (e.g., Garageband, Audacity)	27%	4	0%	0	73%	11	0%	0
11. Video editing (e.g., iMovie, MovieMaker, Final C Premier)	40%	6	%	2	47%	7	0%	0
12. Authoring tools (e.g., Flash, HyperStudio, iBook Author)	40%	6	%	0	60%	9	0%	0
13. Animation (e.g., iStopMotion, Frames)	27%	4	%	0	73%	11	0%	0
14. Drill and practice software (e.g. practice for sp g or math)	27%	4	%	5	33%	5	7%	1
15. Instructional games (e.g., Oregon Trail, Lemona Stand)	13%	2	%	5	40%	6	13%	2
16. Simulations (e.g. frog dissections, science experim ts)	33%	5	0%	3	67%	7	0%	0
17. Tutorials (e.g., programs that teach specific subject matter)	27%	4	40%	6	27%	4	7%	1
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	%		13%	2	47%	7	13%	2
19. Email	0%	0	53%	8	0%	0	47%	7
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	87%	13	0%	0	13%	2
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	13%	2	60%	9	7%	1	20%	3
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	0%	0	20%	3	47%	7	33%	5
23. Video conferencing (e.g., Skype, Facetime)	7%	1	20%	3	47%	7	27%	4
24. Desktop computer	0%	0	73%	11	0%	0	27%	4
25. Laptop computer	7%	1	87%	13	0%	0	7%	1
26. Tablet computer (e.g., iPad)	20%	3	80%	12	0%	0	0%	0
27. eReader (e.g., Kindle, Nook)	13%	2	33%	5	27%	4	27%	4
28. Digital camera	0%	0	53%	8	13%	2	33%	5
29. Digital video camera	0%	0	53%	8	27%	4	20%	3
30. Projector	7%	1	60%	9	13%	2	20%	3
31. DVD player	0%	0	40%	6	7%	1	53%	8
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	7%	1	87%	13	0%	0	7%	1

2019

TUPS REPORT 7.2 : Quadrant Summary								
Technology	Quadrant 1		Quadrant 2		Quadrant 3		Quadrant 4	
	low skill, high use		high skill,high use		low skill, low use		high skill, low use	
1. Word processors (Word, Pages, etc.)	0%	0	88%	22	0%	0	12%	3
2. Spreadsheets (Excel, Numbers, etc.)	8%	2	64%	16	0%	0	28%	7
3. Databases (FileMaker Pro, Access, etc.)	16%	4	12%	3	68%	17	4%	1
4. Desktop publishing programs (e.g. InDesign, Publisher)	8%	2	40%	10	52%	13	0%	0
5. Presentation software (e.g. PowerPoint, Keynote, Prezi)	4%	1	84%	21	0%	0	12%	3
6. Concept mapping/Graphic organizers (e.g., Inspiration, Kidspiration)	24%	6	20%	5	44%	11	12%	3
7. Web publishing programs (e.g., DreamWeaver, Nvu, KompoZer)	8%	2	28%	7	48%	12	16%	4
8. Draw and paint programs (e.g., KidPix, Illustrator, Paint.net)	12%	3	24%	6	52%	13	12%	3
9. Photo editing (e.g, Photoshop, iPhoto)	12%	3	16%		56%	14	16%	4
10. Sound editing (e.g., Garageband, Audacity)	20%	5	4%	1	68%	17	8%	2
11. Video editing (e.g., iMovie, MovieMaker, Final Cut, Premier)	44%	11	24%	6	4%	6	8%	2
12. Authoring tools (e.g., Flash, HyperStudio, iBooks Author)	8%	2	32%	8	%	15	0%	0
13. Animation (e.g., iStopMotion, Frames)	20%	5	4%	1	%	17	8%	2
14. Drill and practice software (e.g. practice for spelling or math)	20%	5	44%	11	%	5	16%	4
15. Instructional games (e.g., Oregon Trail, Lemonade Stand)	20%	5	36%	9	%	5	24%	6
16. Simulations (e.g. frog dissections, science experiments)	36%	9	12%	3	%	11	8%	2
17. Tutorials (e.g., programs that teach specific subject matter)	24%	6	32%	8	24%	6	20%	5
18. Learning Management Systems (e.g., Edline, Blackboard, Moodle)	12%	3	32%	8	32%	8	24%	6
19. Email	0%	0	64%	16	0%	0	36%	9
20. Web browser (e.g., Chrome, Firefox, Internet Explorer, Safari)	0%	0	96%	24	0%	0	4%	1
21. Web 2.0 tools (e.g., blogs, wikis, GoogleDocs)	8%	2	60%	15	12%	3	20%	5
22. Social networking (e.g.; Facebook, Twitter, Edmodo)	0%	0	16%	4	40%	10	44%	11
23. Video conferencing (e.g., Skype, Facetime)	4%	1	36%	9	32%	8	28%	7
24. Desktop computer	4%	1	44%	11	16%	4	36%	9
25. Laptop computer	4%	1	96%	24	0%	0	0%	0
26. Tablet computer (e.g., iPad)	12%	3	84%	21	4%	1	0%	0
27. eReader (e.g., Kindle, Nook)	4%	1	12%	3	40%	10	44%	11
28. Digital camera	4%	1	72%	18	12%	3	12%	3
29. Digital video camera	12%	3	44%	11	24%	6	20%	5
30. Projector	8%	2	52%	13	16%	4	24%	6
31. DVD player	4%	1	44%	11	8%	2	44%	11
32. Interactive Whiteboard (e.g., SMART Board, Promethean)	8%	2	72%	18	8%	2	12%	3

In this instance, we targeted certain technology that would have a high impact on student learning, but that the teachers were not comfortable with. Through concentrated coaching and professional development we see a shift to Quadrant II for this technology.

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The TUPS is just the beginning…

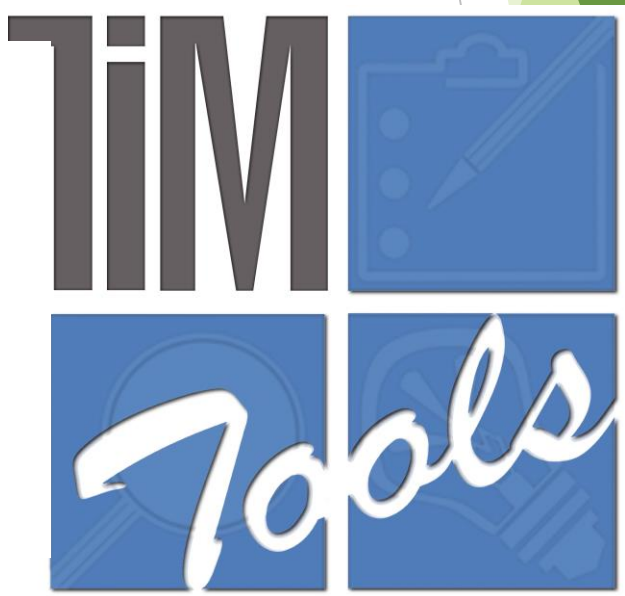
The S3 EdTech Team can work with your school/district to take the TUPS data and put it to work for your students. S3 provides professional development, coaching, and goal-setting at a variety of levels to facilitate the implementation of the Technology Integration Matrix (TIM) pedagogy. Additional TIM Tools are also available. The end result is a transformation in the way students learn. A shift away from rote memorization and passive learning to problem solving, research, application, analysis, synthesis and construction of knowledge. As teachers become comfortable integrating technology at the higher levels of the TIM, we see

- Increased student engagement
- Student ownership of learning
- Learning outcomes that exceed expectations
- Increase in authentic, real-world skills such as collaboration and goal-setting.

Pairing the TUPS with the TIM and TIM Tools

- The TUPS on its own provides invaluable data. However, schools and districts can use the **Technology Integration Matrix** (TIM) and the other **TIMTools** to systematically and strategically change the way teachers view and use technology. The TIM helps focus classroom technology use on improving learning outcomes. Through the TIM, we provide data collection tools, professional development materials, and thought leadership to support effective classroom technology integration.

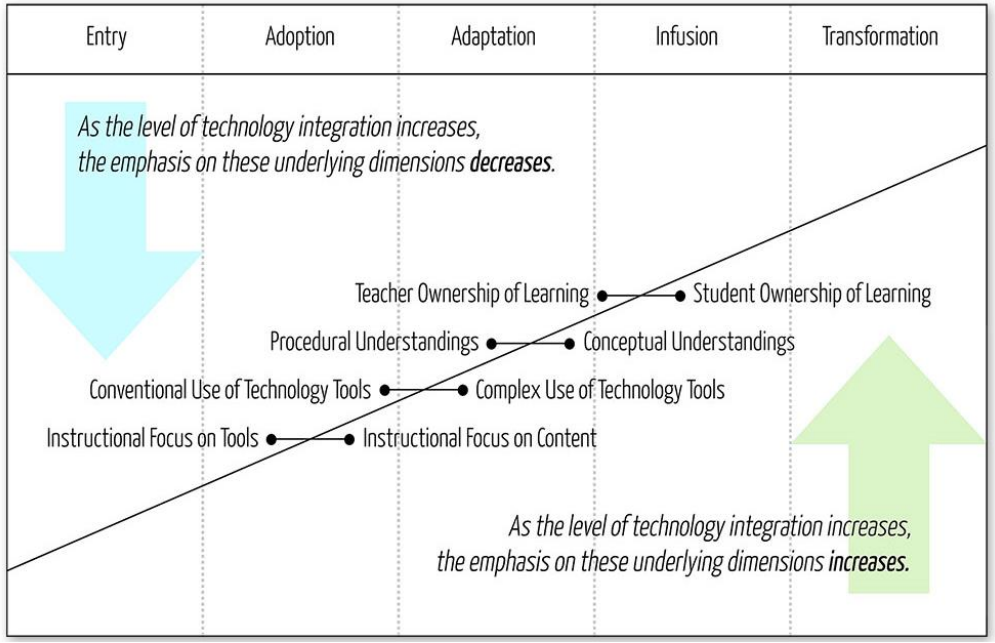
The Technology Integration Matrix



Benefits of the TIM

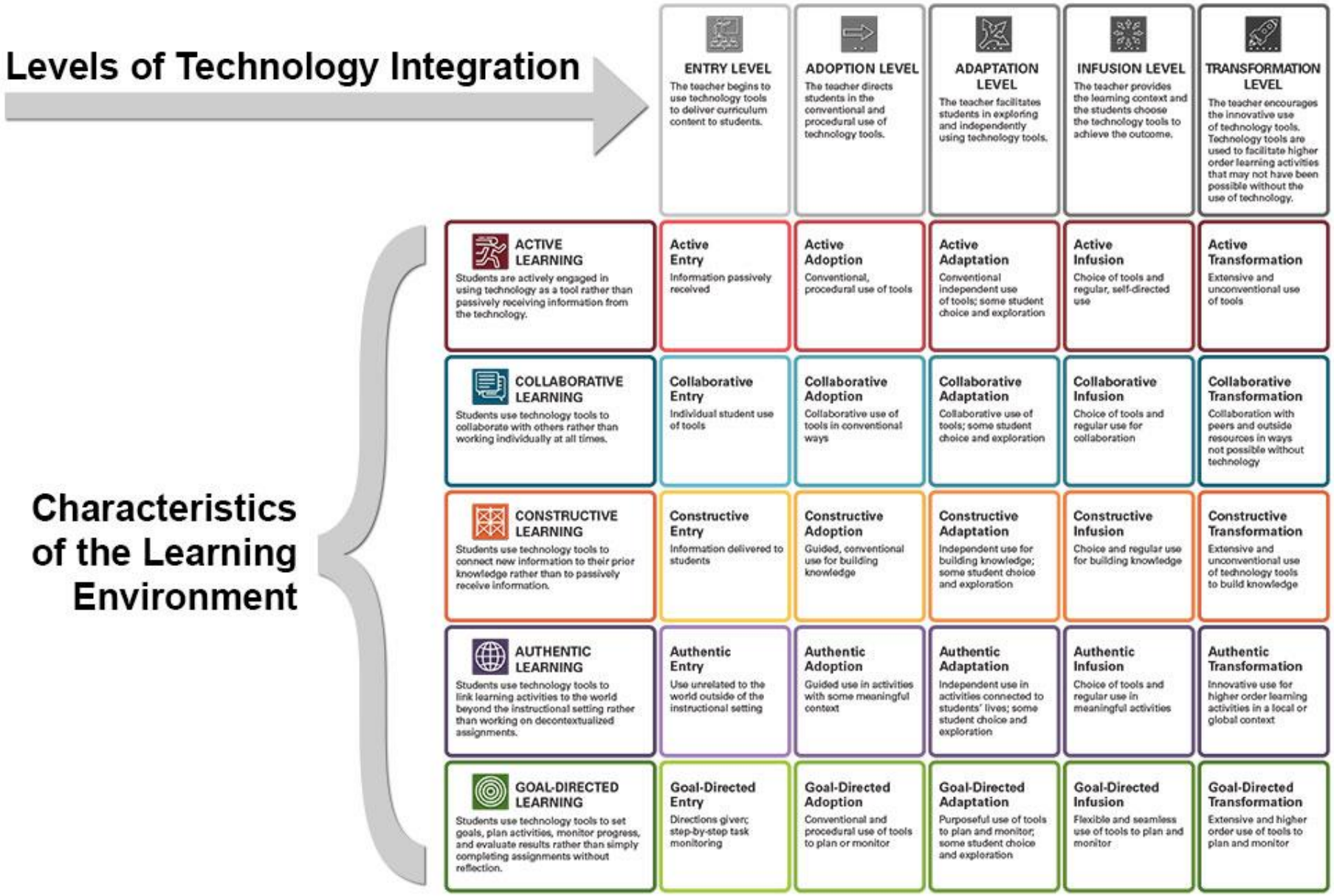
Schools that effectively implement the TIM and TIMTools increase teacher comfort, understanding, and ownership of technology which ultimately increase student learning outcomes. At the higher level of technology integration, you will see a shift from:

- Lower-order thinking skills to **higher-order** skills
- Instructional focus on tools to a focus on **content**
- Conventional use of technology to **complex** use
- Procedural understanding to **conceptual** understanding
- Teacher ownership of learning to **student ownership** of learning



The Technology Integration Matrix

- A common language for technology integration and professional development
- 5 Attributes of Learning Environments (Active, Collaborative, Constructive, Authentic, and Goal-Directed)
- 5 Levels of Technology Integration (Entry, Adoption, Adaptation, Infusion, Transformation)



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Let's Get Started

The S3 EdTech Team is excited to begin collaborating and partnering with your school/district. Call or email for a consultation and customized quote.

Tricia Dirker

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Please also check out these FREE resources for you and your faculty.

TECHU
LEARN AND SHARE TECHNOLOGY
https://goo.gl/FoZdHn

E-TIP
Educational Technology Integration Pointers
http://bit.ly/S3ETip

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We would like to thank St. Michael School, Worthington, OH, for permitting S3 Technologies to use their data as sample data.

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