Bright Bytes Technology Survey Results 2017

In December of 2016 Odessa Montour again participated in a technology survey facilitated by Bright Bytes. The survey was taken by Students, Staff and Parents. The district now has two years' worth of survey data to analyze.

The BrightBytes framework covers **Classroom**, **Access**, **Skills** and **Environment**.

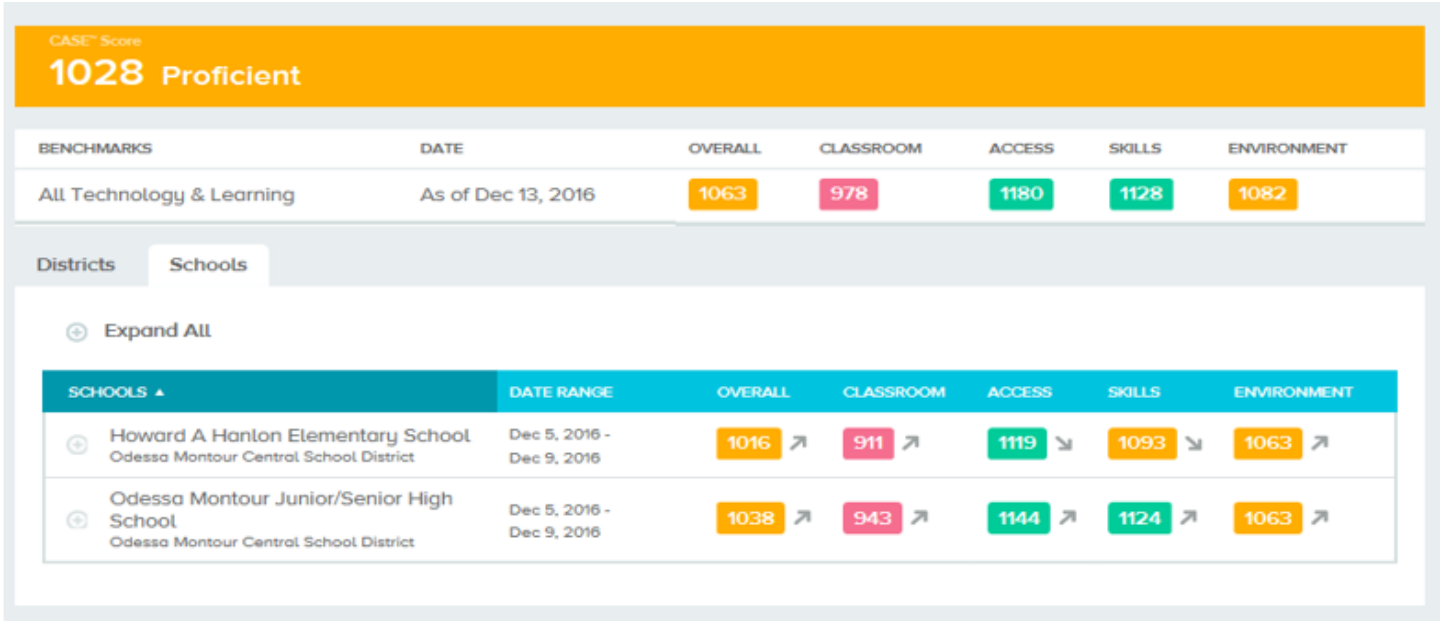
· The **Classroom** section displays how teachers and students are using technology in the classroom, including looking for evidence of the 4Cs (communication, collaboration, creativity, and critical thinking), involvement with assistive technology, digital citizenship, and digital assessment.

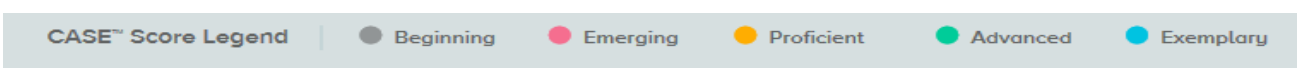
· **Access** at school captures the availability of Internet-connected devices to teachers and students, as well as important peripherals, such as projectors, interactive whiteboards, and digital video cameras both at school and at home.

· The **Skills** section communicates whether teachers and students have foundational skills needed to use technology, the ability to leverage online environments for access to information, and the ability to create presentations, podcasts, videos, and more using multimedia.

· **Environmental** factors like the 3Ps, (Policies, Procedures and Practices), technical support, PD opportunities, and community beliefs about technology can turbo-charge a technology program or they can bring it to a screeching halt.

The district overall *Proficient* score of 1028 falls within the national average. Odessa scored Proficient or Advanced in three of the four framework categories. The previous CASE score for the district was 1022.





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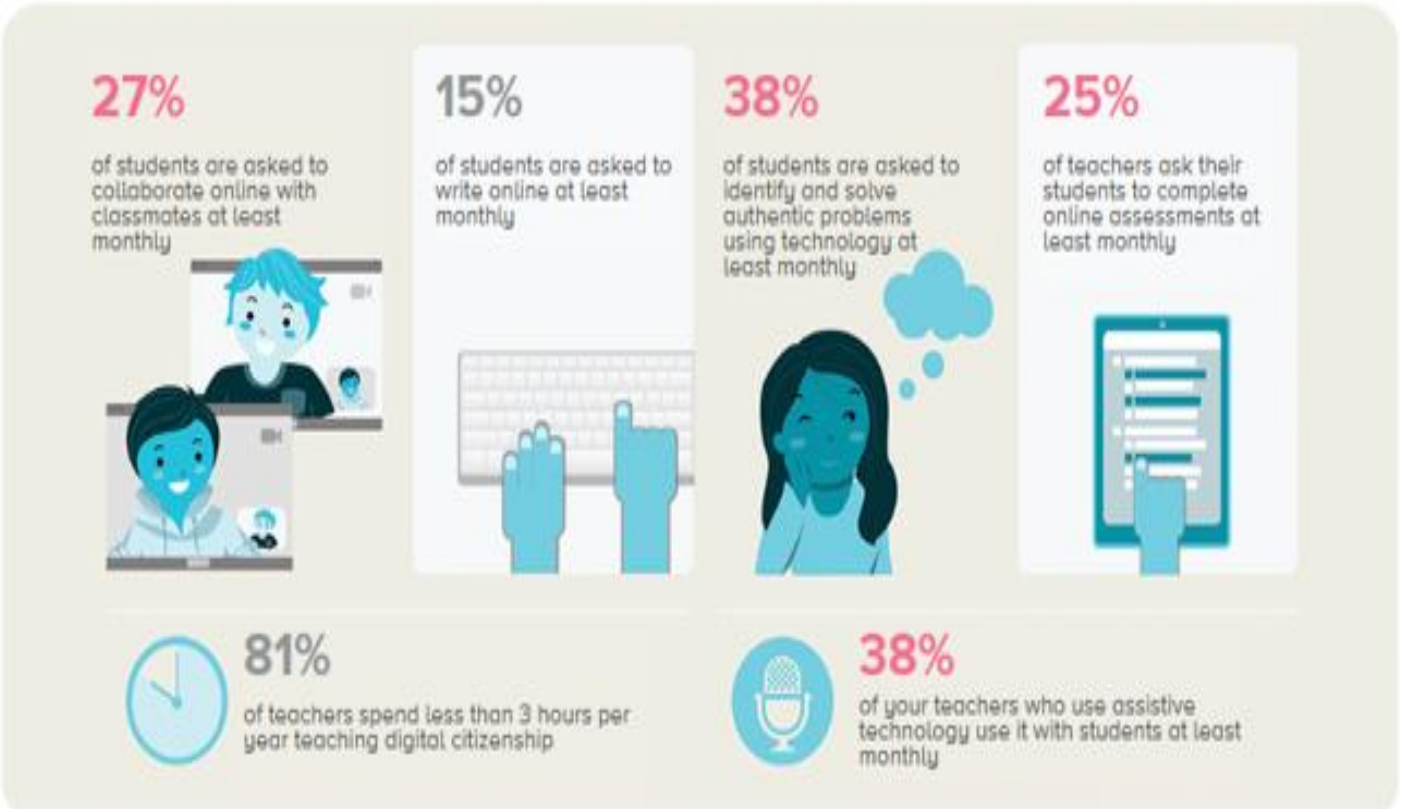
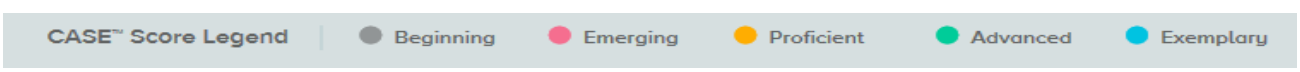
21st Century Learning

21st Century Learning requires organizations to meet the current requirements of our standardized tests while also striving to achieve the 4Cs: communication, collaboration, creativity, and critical thinking. The skills needed for success in college and career are becoming increasingly complex, and schools must rise to meet new demands.

New academic standards and accountability measures across the nation have broadened the classroom experiences required for proficiency. As expectations rise, students are struggling to keep up. This trend is evidenced by falling preliminary assessment scores across the nation. Traditional instruction may be to blame. In their recent investigation of 21st Century Learning, National Academies Press found that rote learning does not support the educational transfer necessary to tackle the complex problems demanded by intensified academic standards. Students must be exposed to unfamiliar problems and encouraged to design meaningful solutions. Technology is a tool for such problem solving. A national Walden University study reports that teachers who use technology frequently place the highest emphasis on problem solving.

Technology is a key driver towards instruction that impacts student learning outcomes, both on standardized assessments and for 21st Century learning skills. Students must have regular opportunities to engage in the 4Cs. In addition, they must have access to the instant feedback enabled by digital assessment and customized assistive technology. Being aware of the classroom setting and the typical learning experiences afforded to students in your organization is the first step towards the cultivation of 21st Century Learning.





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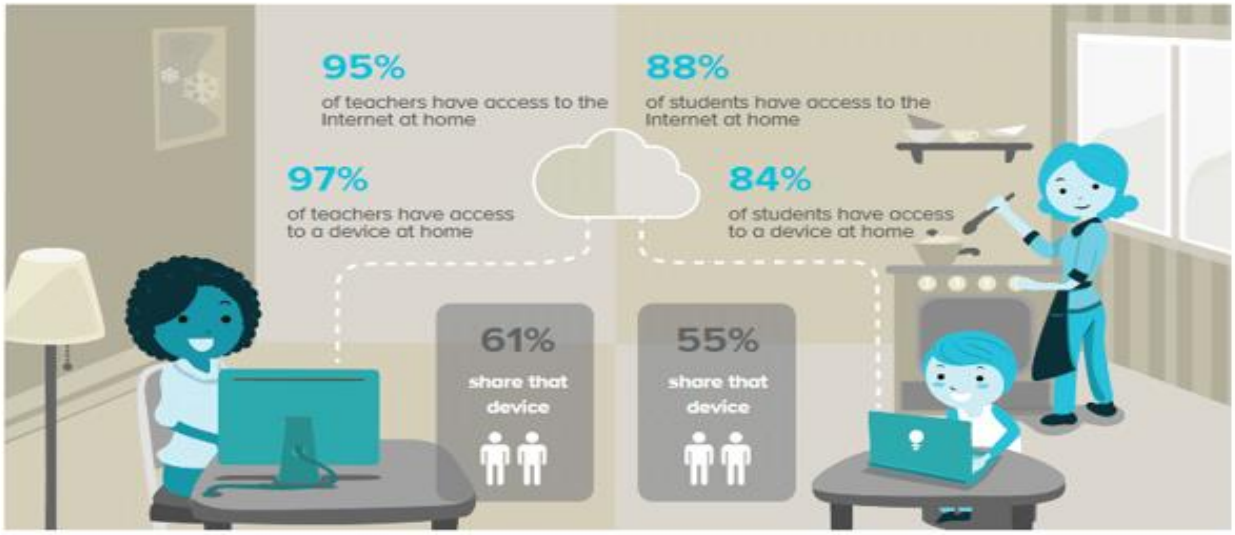
Infrastructure at School

Teachers' and students' access to technology at school is a prerequisite for 21st Century Learning. According to NCES, the ratio of students to computers in the classroom every day is 5.3 to 1. However, this is often not sufficient for transformative instruction to occur.

Infrastructure at Home

Teachers' and students' access to technology both at home and at school deeply affects the learning environment. Specifically, a recent Pew report states that 92% of teachers believe that access to technology and the Internet has had a major impact on instruction.



CASE™ Score Legend | Beginning | Emerging | Proficient | Advanced | Exemplary

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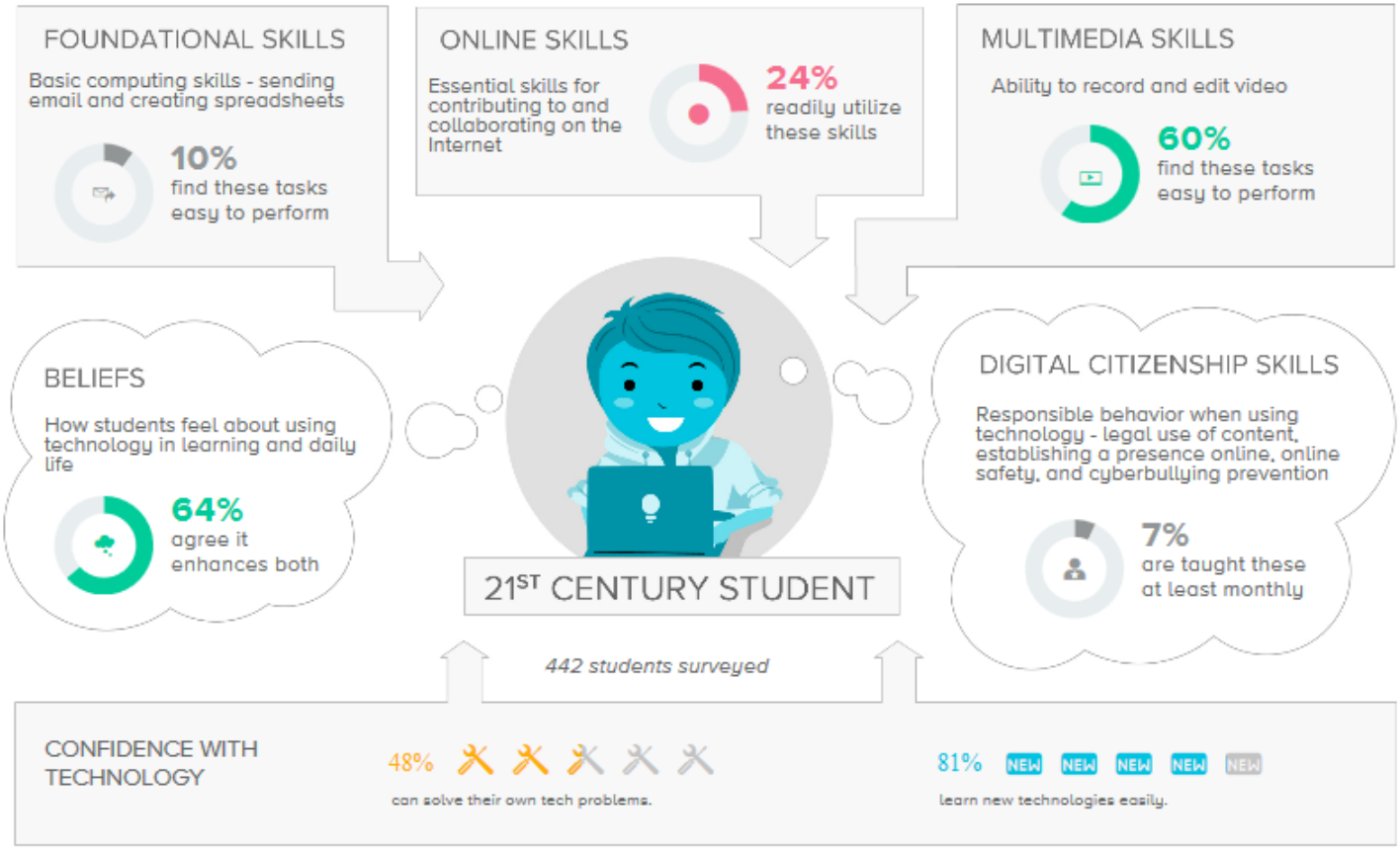
Curriculum Skills

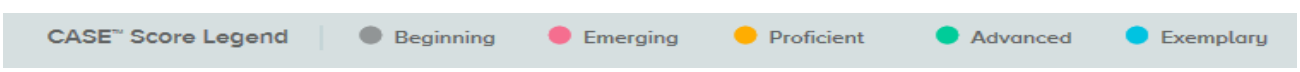
Classrooms that prepare students for college and career seamlessly integrate technology into daily instruction in a way that intentionally scaffolds students' technology skills. Although today's students are digital natives with many skills in social networking, the majority of them are not social learners with the ability to apply complex technology skills to everyday challenges.

Furthermore, students' everyday experiences are seamlessly interwoven with digital devices and instant communication. In order to meet students "where they are," technology instruction must be infused in every subject area. Teachers are aware of this trend. According to a national Pew survey, 95% of students regularly use the Internet.

Given this, a modern curriculum must purposefully include incremental technology-infused skill acquisition. However, the design of every effective curriculum begins by considering the unique needs of the learners. Although students are comfortable tweeting and surfing the web, they still need support to use technology for productivity tasks such as creating spreadsheets and sending professional email.

Being aware of students' skill profiles with technology can greatly inform the development of a cohesive, integrated curriculum that allows students to build the technology skills sets necessary for college and career.





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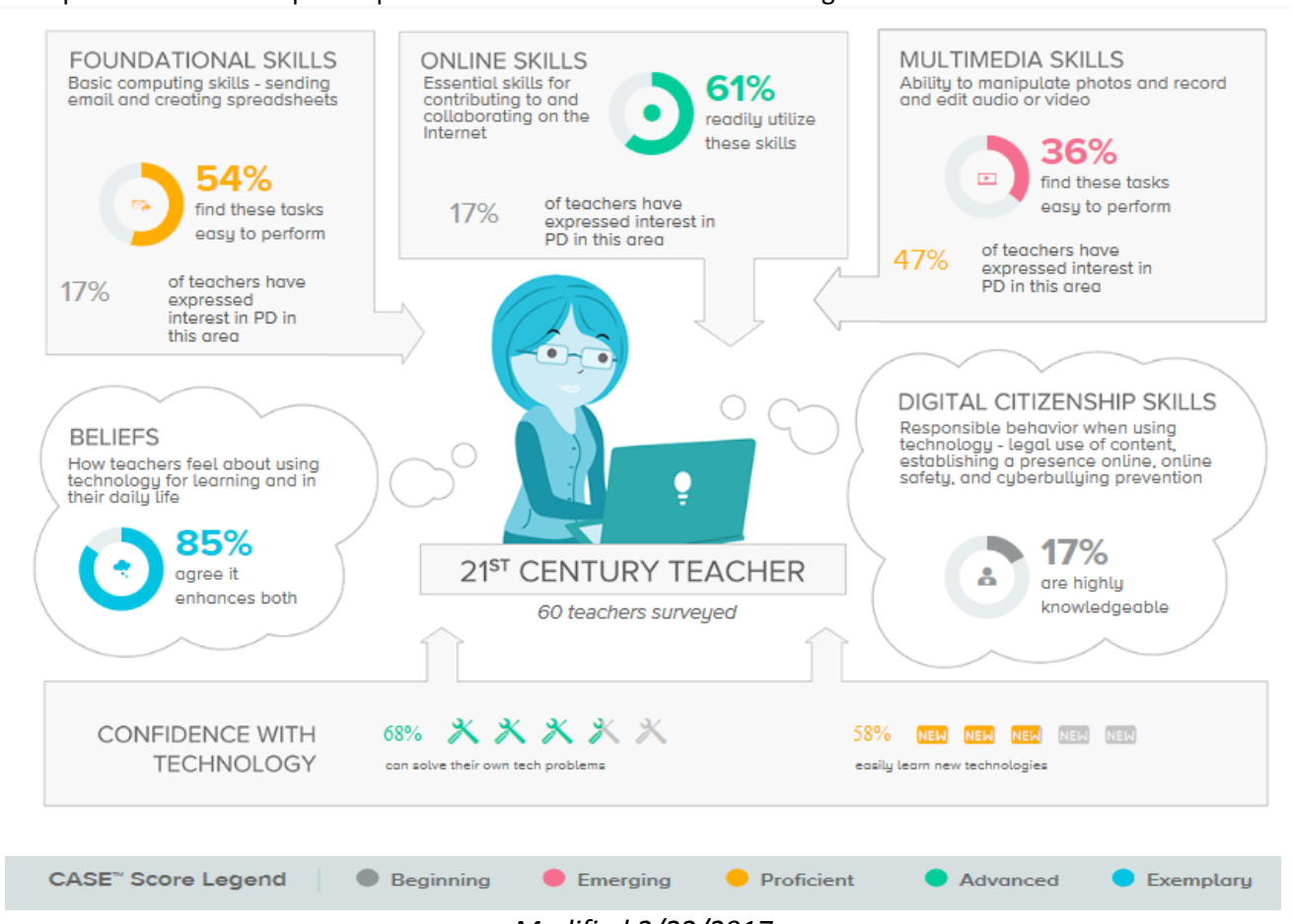
Professional Development

Effective professional development for teachers can have an enormous impact on teaching and learning in an organization. However, professional development experiences for teachers must be sustained and of high quality for improved learning outcomes to be realized. Specifically, the Center for American Progress reports that 14 hours of high quality professional development on a single topic is needed before the classroom is impacted to a statistically significant degree. However, CASE data collected from hundreds of schools indicates that 76% of teachers report less than 17 hours of school-sponsored professional development around technology in the last 12 months.

Research from the International Society of Technology Education (ISTE) also reveals that high quality professional development is job-embedded, personalized, and designed to promote skill transfer. Professional learning experiences must respond to teachers' interests, needs, and classroom settings. In many cases, these types of learning experiences can extend beyond the traditional school in-service setting to include webinars, Twitter chats, and other virtual experiences.

This type of dynamic instruction helps both teachers and students alike. A Walden University study reports that teachers who use technology frequently place the highest emphasis on using technology to promote problem-solving, critical thinking, and communication.

Being aware of teachers' skill profiles and interests with technology can greatly inform the development of a cohesive, integrated professional development plan that will enhance student learning outcomes.



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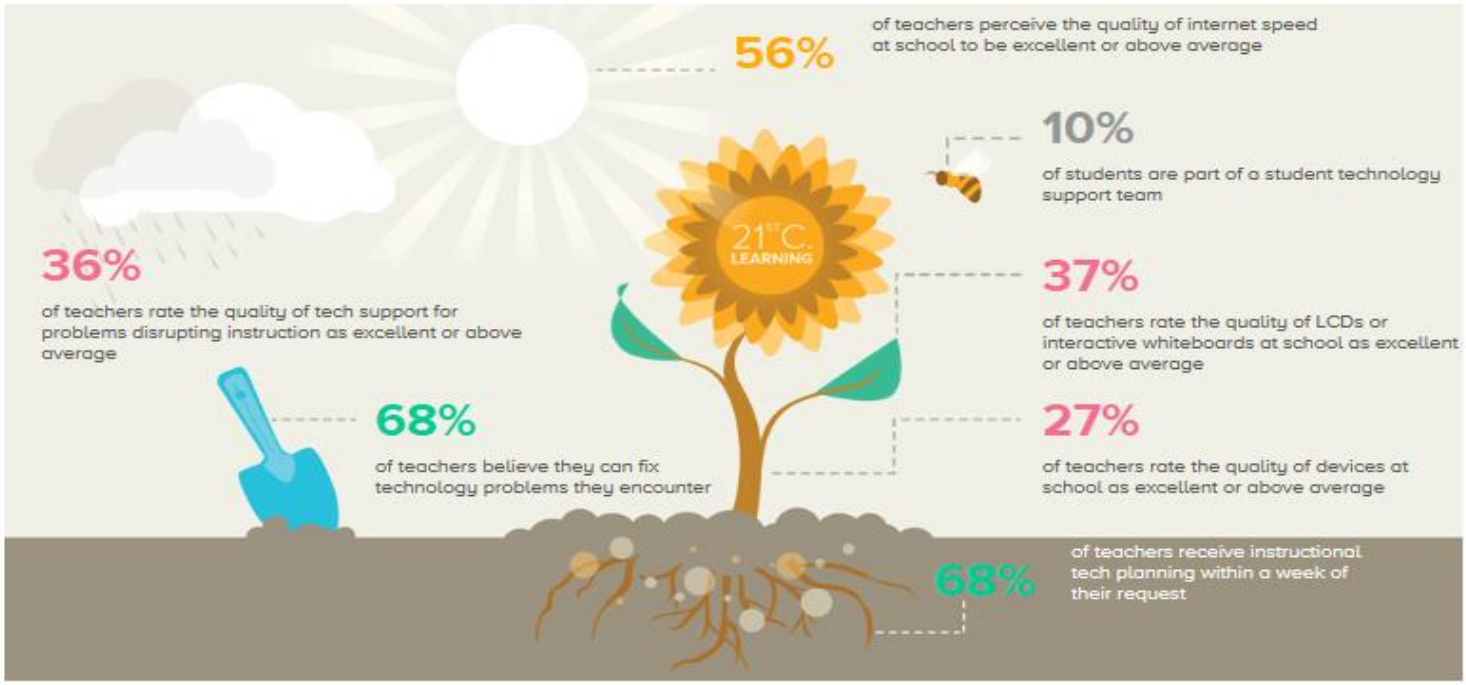
Technology Support

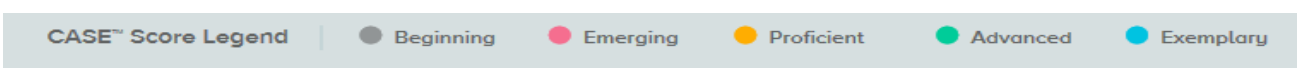
High quality, speedy, educative technology support is the catalyst for teachers trying new instructional techniques that employ technology. These environmental factors can overcome the lack of confidence that teachers have with technology, as expressed in a 2012 LEAD Commission National survey, in which 82 percent of teachers feel they have not received the necessary training to use technology to its fullest potential in the classroom.

However, adequate technology support can assuage teachers' trepidations. Teachers who perceive that the quality of technology support is high are more likely to try new lessons or learning activities with technology. This is because they feel confident that someone will be able to help them if a problem or disruption occurs. Seventy six percent of teachers at schools that use Clarity agree that technology use can enhance student learning and that learning is more engaging with the use of technology.

Furthermore, organizations can multiply teachers' access to technology support through the use of student technology support teams. An article in Educational Leadership notes that involving students in teaching technology to their teachers engages "students' innate interest in technology [and] enables teachers to contextualize technology."

High quality, speedy technology support is a perquisite environmental factor needed to cultivate classrooms that support 21st Century Learning.





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Next Steps

Odessa has a Technology Committee that meets monthly to discuss technology in the district. The committee consists of teachers, administrators and technical support staff.

The district has implemented technology initiatives this school year with the following projects:

- BC Cate computer lab has been updated with all new computers running Windows 10.
- The High School has a new computer lab this year.
- Adobe Creative Cloud software is available district wide giving staff and students access to the entire Adobe Suite of products. These titles include design tools, web tools as well as video and audio tools.
- Students in grades 6 – 12 have email accounts as well as access to Office 365 from any web based device.
- Odessa has replaced the entire printer and copier fleet this year. The district is also utilizing a print management system to help save resources.
- New classroom software titles this year include Music Ace for all grade levels, Learning A-Z for grades K-6 and ST Math, also for grades K-6.
- School eBook Library eBooks collection available online. All of the eBooks are in PDF file format, and all Audio eBooks are in MP3 file format. These formats have been specially designed to be cross-platform compatible with all PCs, Laptops, PDAs, Kindle DX, Kindle 3 iPad/iPods, eReaders, or Smartphones.
- District staff can manage faxes through their computers and email.
- Hanlon sixth grade students are participating in a pilot project using Microsoft's Minecraft for Education.
- District staff computers continue to be updated.
- There are now seven Promethean ActivBoards located in classrooms throughout the district.
- District has been awarded Category 2 ERate funding. This project will provide network infrastructure upgrades in the district.
- Odessa has been approved for the New York State SMART Schools Bond project. Those funds will be used to update current wiring infrastructure.

The district will conduct a third Bright Bytes survey in the late fall, 2017.

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