



FOOTHILL-DE ANZA
Community College District

District Technology Plan

2021-2022 Revision

Approved March 2022

EDUCATIONAL TECHNOLOGY SERVICES



Moving Education Forward With Technology

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Educational Technology Advisory Committee Members

The members listed below represent stakeholders from throughout the district. They have brought invaluable insight to the technology planning process.

Joseph Moreau, <i>Chair</i> Vice Chancellor of Technology	Pam Eberhardt ETS Executive Assistant
Sharon Luciw Associate Vice Chancellor of Technology	Chien Shih Associate Vice Chancellor of Technology
Marisa Spatafore Associate Vice President, De Anza College	Alex Harrell Web Administrator, De Anza College
Michael Murphy Faculty Member, Foothill College	Danny Acosta Chief, District Police
Chris Chavez Student Success Specialist, Foothill College	Lydia Daniel Adjunct Faculty Member, Foothill College
Lenore Desilets Faculty Member, De Anza College	Tom Dolen Librarian, De Anza College
Moaty Fayek Division Dean, De Anza College	John Fox Faculty Member, Foothill College
Nazy Galoyan Dean, De Anza College	Lydia Hearn Associate Vice President, De Anza College
Kate Jordahl Faculty Member, Foothill College	Marty Kahn Technology Resource Coordinator
Dennis Shannakian Student Activities Coordinator, De Anza College	Paul Szponar Librarian, Foothill College
Lené Whitley-Putz Dean, Foothill College	Lief Nelson Officer, District Police

A Message from Chancellor Miner

Virtually every plan and decision we make in the Foothill-De Anza Community College District is focused through the lens of equity. This is most certainly true of the technology we deploy. Our use of technology supports equitable access to critical digital resources for all students, faculty, and staff.



Over the years, our technology planning efforts have kept our district at the forefront of innovation and access. Most recently, our technology preparedness was demonstrated with great clarity by the effects of the pandemic. As all of our stakeholders needed to pivot, literally over a weekend, to 100% remote instruction and operations, our readiness to support them was tested to the limits. I am proud to say we passed this test with flying colors. As we emerge from the disruption of the pandemic, I am confident our technology planning efforts will help us sustain some of the important gains we made while responding to the greatest emergency in our lifetime.

I am thankful for the efforts of the Educational Technology Advisory Committee in working closely with our college technology planning bodies to assure the alignment between college and district technology goals. Through this collegial collaboration, our district is optimizing our investment in technology and providing our students, faculty, and staff with a robust, reliable, and consistent educational and professional experience.

Given the substantial accomplishments of our most recent District Technology Plan, I am even more excited to see what can be accomplished in the next three years under this Plan.

I want to close with an expression of the deepest gratitude to Vice Chancellor Joseph Moreau who has provided exemplary leadership for all aspects of our technology efforts. When he retires as of April 30, 2022, his legacy to Foothill-De Anza will endure through his contributions to policy development and systems implementation, and his formation of a team of outstanding professionals. I could not be more proud of all my colleagues in Educational Technology Services.

Sincerely,

Judy C. Miner, Ed.D
Chancellor

Introduction and Overview

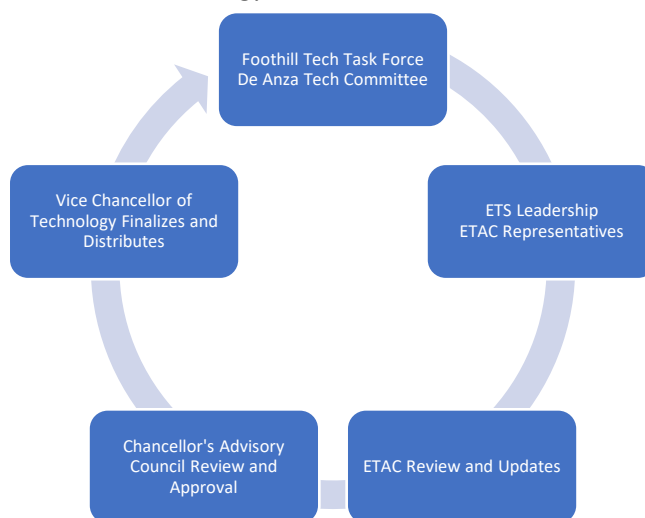
Supporting the Colleges and the District

Educational Technology Services (ETS) is a Central Services division that supports the technology systems and users at Foothill College, De Anza College, and District Offices. Educational Technology Services provides a district-wide approach to information systems, networks, information security, client services, classroom technology, help desk, institutional research and planning, and strategic technology initiatives.

The goals of the Education Master Plan and the Equity Plan for the Foothill-De Anza Community College District have been addressed in considerable detail in both the Foothill and the De Anza college technology plans. The district strategic technology plan, in so far as it has been structured explicitly to support the respective college plans, is also addressing the goals of the Education Master Plan and the Equity Plan.

Development of the District Technology Plan

The District Technology Plan is a continuing three-year plan, updated annually via input from the college technology committees (Foothill Technology Task Force and De Anza Technology Committee) and through various instruments or needs assessments conducted each academic year. This information is shared with ETS leadership and the Educational Technology Advisory Committee (ETAC), which reviews modifications to the plan and sends those forward to the Chancellor's Advisory Council. Upon review and approval from the Chancellor's Advisory Council, the District Technology Plan is finalized and disseminated by the Vice Chancellor of Technology.



Supporting Remote Instruction and Operations

During the 2021-22 academic year, the effects of the Coronavirus global pandemic continued to impact the ability for the colleges and Central Services to maintain 100% on-site operations. For much of this time, a majority of staff continued to work remotely, online classes comprised a majority share of

instruction, and various projects districtwide, including technology initiatives, necessarily shifted to ensure continuity of operations, flexibility as public health requirements changed, and increased service and support were prioritized. As such, some objectives planned for 2021-22 were postponed.

Accreditation Support

With regard to regional accreditation efforts, specifically ACCJC Standard III.C, it is important to note that the colleges and district are closely coordinating their efforts to effectively deploy educational technology to support academic mission of the colleges. As this document confirms, the colleges have spent considerable time and energy identifying their strategic capabilities and goals relating to educational technology. The district strategic technology plan responds directly to the college plans and outlines in clear terms where and how ETS can support the technology needs of the colleges.

The following [functional map](#) delineates primary (P), secondary (S), or shared (SH) responsibility for colleges and the district, as related to Standard III.C.

Standard Number	Description	College	District
III.C.1	Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching and learning, and support services	Shared	Shared
III.C.2	The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.	Shared	Shared
III.C.3	The institution assures that technology resources at all locations where it offers courses, programs, and services are implemented and maintained to assure reliable access, safety, and security.	Secondary	Primary
III.C.4	The institution provides appropriate instruction and support for faculty, staff, students, and administrators, in the effective use of technology and technology systems related to its programs, services, and institutional operations.	Primary	Primary
III.C.5	The institution has policies and procedures that guide the appropriate use of technology in the teaching and learning processes.	Shared	Shared

Progress & Status from Previous Plan

The previous district technology plan was originally designated to cover the years 2017-18 through 2019-20. Due to the pandemic, the Educational Technology Advisory Committee decided to extend that period to 2020-21. The progress and status below reflect accomplishments through June 2021.

Goal 1 – Modernization	Progress	Status
Objective 1 – Implement Adobe Sign system and integrate with the Banner ERP system.	Complete	Adobe Sign is in wide use throughout the district for a wide variety of approval and workflow processes.
Objective 2 – Upgrade Banner ERP system to version 9.	Complete	The Banner ERP system has been fully upgraded to version 9.
Objective 3 – Pilot business intelligence software for institutional research.	Postponed	
Objective 4 – Implement a managed print service system for employee printing.	Complete	Manage print services for all employees have been implemented across all district sites.
Objective 5 – Implement off-campus access to virtual desktop infrastructure.	Complete	Virtual desktops are now available to students from off-campus locations.
Objective 6 – Migrate email and calendar to the cloud.	Complete	All district email and calendar services for employees and students have been migrated to the Office365 cloud platform.
Objective 7 – Upgrade the KACE end user support system.	Complete	The KACE system has been upgraded to version 11.0.273.
Objective 8 – Implement a variety of productivity and support applications. • JobEx – student employment system • Slate CRM – international student support • Curriculum management system for Foothill College	Discontinued Complete Complete	Sponsoring department withdrew request. Slate is now fully implemented to support international student application and intake. The Courseleaf system has been implemented.

Goal 2 – Infrastructure		
Objective 9 – Refurbish the Foothill 1911 machine room.	Complete	All electrical, fire suppression, and HVAC systems have been upgraded along with new physical security systems.
Objective 10 – Expand Wi-Fi coverage.	In Progress	Wi-Fi expansion is a perennial project. New short- and long-term plans for Wi-Fi expansion have been published and are underway.
Objective 11 – Support the opening of the new District Office building.	Complete	The new District Office building has been commissioned and all staff have moved in. The new Board Room is fully functional.
Objective 12 – Assist in the upgrade of the De Anza electronic lock system.	Complete	Virtual servers provisioned for vendor software installation.
Objective 13 – Upgrade network and server equipment.	In Progress	Network equipment and on-premises servers are continuously being upgraded and replaced.
Goal 3 – Security		
Objective 14 – Consolidate the district’s Active Directory system.	Complete	Consolidation of the Active Directory system was completed with the migration of email and calendar to the Office365 cloud platform.
Objective 15 – Deploy information security training for all employees	Complete	A new training program from KnowBe4 has been deployed. This program includes security training and testing for all employees.
Objective 16 – Conduct penetration testing and PCI compliance assessment.	In Progress	PCI3 Compliance Gap Assessment finished. Penetration tests conducted annually.
Objective 17 – Upgrade firewall and intrusion protection systems.	Complete	All firewalls have been replaced with Palo Alto Networks devices.
Objective 18 – Implement Symantec end point protection system.	Postponed	The original product selected was acquired by a new company and has been sidelined for development. A new solution is being researched.

Objective 19 – Provide standardized back up for employee data files.	Complete	All employees may back up any data files from their desktop/laptop to OneDrive on Office365.
Objective 20 – Implement new network security monitoring tools.	In Progress	Researching solutions.
Goal 4 – Cloud Technology		
Objective 21 – Migrate key systems to the cloud.	Complete	Most of the mission-critical systems that support the district have been migrated to cloud platforms.
Objective 22 – Transform internal support expertise to support cloud applications.	In Progress	ETS staff are regularly going through training and professional development to enhance their skills and strategies for supporting cloud-based applications.
Goal 5 – Institutional Culture		
Objective 23 – Update data retention policy.	Not Started	
Objective 24 – Provide training to employees on compliance issues.	Not Started	
Goal 6 – Training & Professional Development		
Objective 25 – Conduct training for the Banner 9 ERP system.	Complete	The Banner 9 ERP system has been in place for several months. All impacted staff have been trained.

Technology Plan 2021-2024

Strategic Capabilities

At the broadest level, the district has identified the strategic capabilities listed below. These are the specific capabilities the district strives to achieve with the support of technology. These capabilities also represent the institutional characteristics that need to be in place to support the technological goals and objectives of the colleges and the goals and objective of numerous other plans within the district around instruction, equity, facilities, and others. These strategic capabilities are not typically expected to change frequently, and the bulk of these capabilities were identified in the district's 2017 Technology Plan. The strategic capabilities are reviewed each year by the Education Technology Advisory Committee (ETAC). Any changes are noted below.

1. Develop and maintain infrastructure and exostructure that supports the digital transformation of our colleges and Central Services organization.
2. Develop and maintain an agile product management methodology to support the efficient, effective, and timely completion of IT projects.
3. Partner with established and start-up technology firms to enhance the capabilities of the district and provide leading edge services for students, faculty, and staff.
4. Provide for the effective stewardship of district resources to promote efficiency, cost-effectiveness, privacy, and security.
5. Provide for rapid and agile instructional and operational shifts in response to catastrophic events that impact both on-campus and online infrastructure. *

3-Year Goals

Based on the strategic capabilities above, ETAC has identified the following goals to be accomplished over the next three years. These goals are also essential in supporting the goals and objectives of the colleges articulated in their respective technology plans. The 3-Year Goals are reviewed each year by ETAC and are occasionally revised. Any changes are noted below.

1. Modernize district-wide applications to support greater access, efficiency and effectiveness along with mobility.
2. Improve district-wide infrastructure to support greater speed, reliability, and coverage.
3. Improve information security at all levels.
4. Utilize cloud technology to optimize fiscal and staff resources.
5. Help transform the institutional culture around data management particularly regarding the requirements of FERPA, accessibility (ADA), copyright and fair use, and privacy and security.
6. Increase training and professional development infrastructure and opportunities for faculty and staff. *
7. Enhance collaboration between the colleges and ETS to promote innovation, efficiency, and institutional effectiveness especially in response to campus needs, such as regulatory compliance. *

2021/22 Objectives (1-year implementation plan)

Based on the 3-Year Goals above, the 2021/22 Objectives are intended to describe the specific actions to be taken by ETS and other members in a given year. The 2021/22 Objectives represent initiatives, projects, and tasks that are funded and broadly supported to be done in the course of a year or more.

Goal 1 – Modernization

1. Implement the Banner 9 Self Service platform.
2. Begin the migration to the Banner NGS platform. *
3. Investigate and develop new reporting and business intelligence tools.
 - a. Utilize Banner Pagebuilder
 - b. Implement Banner Ethos platform
4. Implement a variety of productivity and support applications for both colleges and Central Services
 - a. Select and implement a new timekeeping system for all employees
 - b. Pilot a mobile device attendance application with interested faculty
 - c. Implement Banner Workflow module
5. Upgrade Windows machines district-wide to Windows 10.

Goal 2 – Infrastructure

6. Expand coverage of the wireless network and improve connection speeds at all district locations. *
7. Upgrade various network and server equipment.
8. Upgrade classroom, laboratory, and conference room presentation and interaction systems. *

Goal 3 - Security

9. Consolidate and streamline the district's Active Directory identity management system.
10. Continue the use of *KnowBe4* information security training for all employees.
11. Conduct a penetration test and Payment Card Industry (PCI) compliance assessment.
12. Provide standardized back-up for faculty and staff data files through Office365.
13. Implement two-factor authentication for employees with access to highly sensitive data. *

Goal 4 – Cloud Technology

14. Migrate the key mission critical systems and infrastructure to the cloud.
 - a. Upgrade ETS work order system and integrate with the district Lock Shop and Facilities
15. Transform the ETS support expertise to address cloud infrastructure.

Goal 5 – Institutional Culture

16. Update data retention policy.
17. Provide training to all employees on compliance issues such as FERPA, accessibility, copyright, information security and privacy.

Goal 6 – Training & Professional Development

18. Provide training for faculty and staff on Banner 9 Self Service components.
19. Work collaboratively with the colleges to increase and improve professional development opportunities. *
20. Hire additional professional staff to develop and offer professional development and training programs for faculty and staff. *
21. Provide training on the use of the SensusAccess accessibility conversion tool. *
22. Continuously offer new and revised training for employees on information security

Goal 7 – Collaboration*

23. Convene a district wide group to develop strategies and standards for accessible digital resources. *

* New or revised for the 2021-24 3-year plan or 2021-22 annual implementation plan

Appendix A: 2021 Central Services Technology Needs Assessment Survey



2021 Central Services Technology Needs Assessment Survey

51

Responses

15:30

Average time to complete

Active

Status

1. Which of the following best describes your role in Central Services?

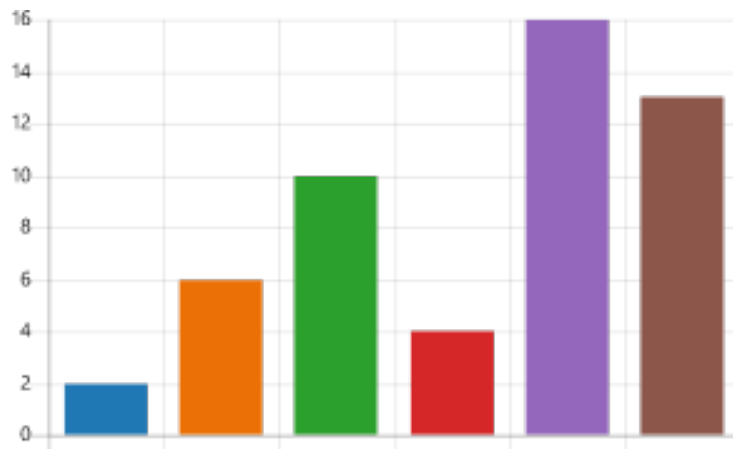


Classified Professional	40
Administrator	11



2. How many years have you worked at the district?

Less than 1 year	2
1 to 2 years	6
3 to 5 years	10
6 to 10 years	4
11 to 20 years	16
21 or more years	13



3. Which device do you use most often in your district work?

 Insights

Smartphone	3
Laptop computer	32
Desktop computer	16
Tablet computer	0



4. Does the device you selected in question 3 generally meet your needs?

 Insights

Yes	49
No	2



5. If you answered "no" to question 4, please explain.

2

Responses

Latest Responses

6. Do you have a fast internet connection at your primary residence?

 Insights

Yes	19
Most of the time	20
Sometimes	9
Rarely	2
Never	1



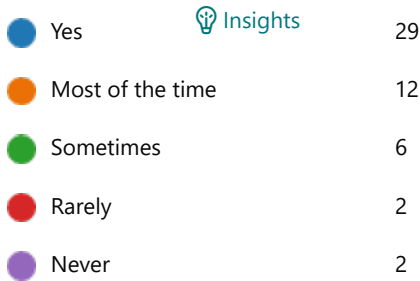
7. Do you have a reliable internet connection at your primary residence?

 Insights

Yes	21
Most of the time	24
Sometimes	4
Rarely	2
Never	0



8. Do you have a space where you can work that allows you to concentrate when needed?



9. Are you comfortable appearing on web camera during meetings?



10. Please explain the reason for your answer in the previous question.

8 Insights
Responses

Latest Responses

"My face feels irrelevant to the work at hand. "

3 respondents (38%) answered **work** for this question.

home environment tv face Privacy concerns
work at hand **work** home professional
Work is fine
home workspace people irrelevant to the work
necessary background is not workspace background

11. Are there tools and/or services you need to do your work successfully that you do not have while working remotely?

💡 Insights

34

Responses

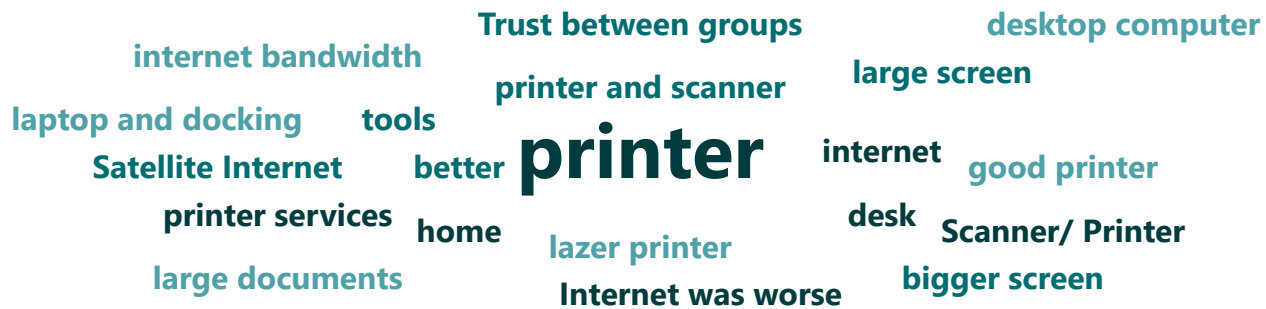
Latest Responses

"A standing desk (table top height extender) would be useful."

"No"

"Scanner/ Printer"

6 respondents (18%) answered **printer** for this question.



12. Are there features of Zoom that you would like to use but do not use often or at all or that you feel you are not using well.

● Yes	8
● No	39
● I do not use Zoom	2



13. If you answered "yes" to the previous questions, please explain.

6💡 Insights

Responses

Latest Responses

4 respondents (67%) answered **Zoom** for this question.

Zoom meeting

better utilize

audio language

Class for Zoom

Zoom

use

14. Which of the following tools is your primary method for communicating with coworkers/managers/students/visitors/the public?

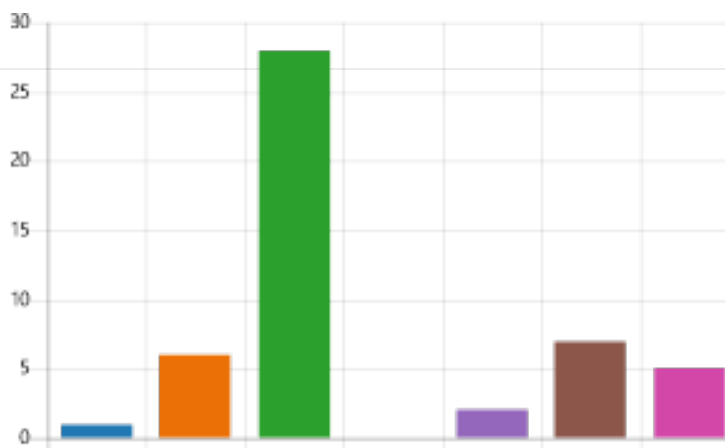
document share

screen share

Zoom product

Insights

Telephone - Jabber	1
Telephone - cell phone	6
Email	28
Text message	0
Online Chat	2
Zoom or other video/web con...	7
Other	5



15. Do you feel the communication with your coworkers/managers/students/vendors while working remotely is convenient and timely?

Insights

Yes	39
No	10



16. If you answered "no" to the previous question, please explain.

10 Insights

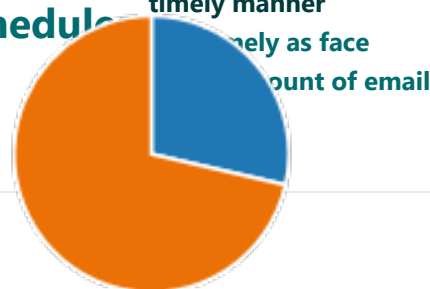
Responses

Latest Responses

3 respondents (30%) answered **emails** for this question.

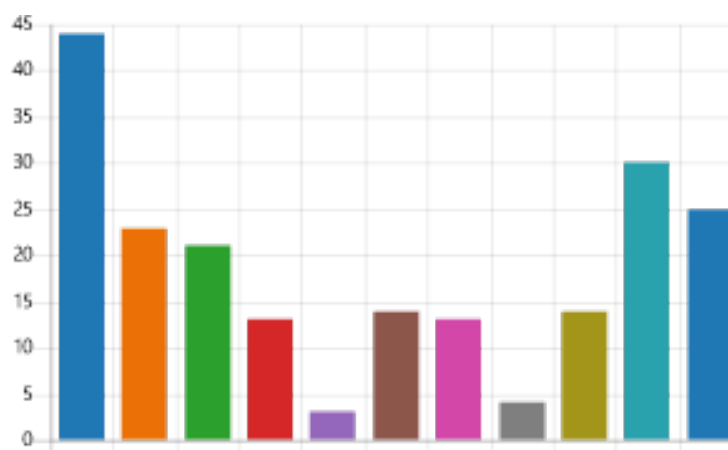
17. Have you installed the De Anza or Foothill app on your mobile device?

Yes	14
No	35



18. Which of the following software tools do you use most often in your work? Please select your top three?

Outlook/email	44
Microsoft Office desktop appli...	23
Office365 cloud applications (...)	21
Banner	13
OmniUpdate	3
Adobe Acrobat	14
Adobe Sign	13
Adobe Creative Cloud (Photos...	4
Google Apps (Drive, Docs, She...	14
Zoom	30
MyPortal	25



19. Aside from the tools listed in the previous question, what other online tools do you use most often to aid in your work? Please list up to three.

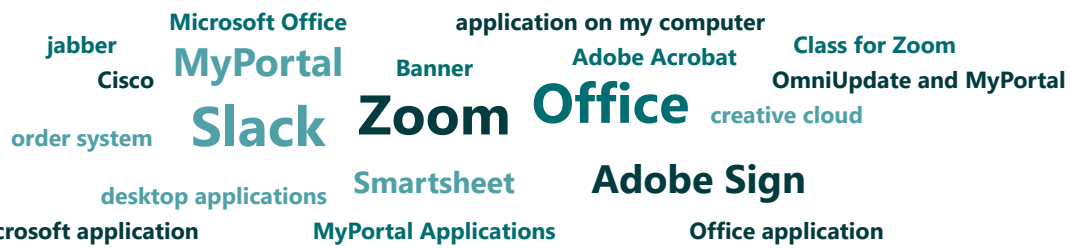
37 Insights
Responses

Latest Responses

"eSARS"

"District web pages and resources, ETS work order system"

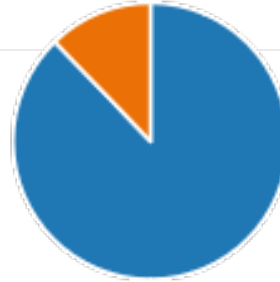
7 respondents (19%) answered **Zoom** for this question.



20. Do you feel you have sufficient training for the technology tools you use?

💡 Insights

● Yes	43
● No	6



21. If you answered "no" to the previous question, please explaining

5 💡 Insights

Responses

Latest Responses

3 respondents (60%) answered **training** for this question.

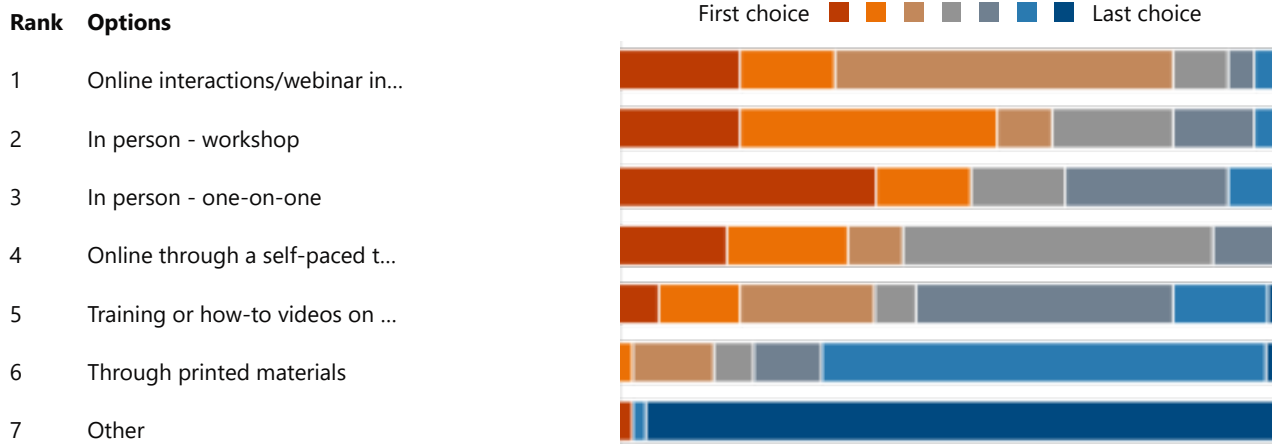
pieces to the puzzle

training day

Microsoft products

training and technology

22. Ideally, how would you like to receive technology training when we are not working remotely due to the pandemic? Please rank your preferences.



23. Is it easy to find and receive the tech support you need?

Insights



24. If you answered "no" to the previous question, please explain.

4

Responses

Latest Responses

25. How would you describe your familiarity with the accessibility guidelines for the creation of written materials and websites? 1 star = not at all familiar, 5 stars = very familiar.

Insights

49

Responses



2.90 Average Rating

26. When you create PDFs or other types of documents for distribution, do you make sure the end product meets accessibility guidelines?

💡 Insights

Yes	20
No	27



27. If you maintain any part of the district website, do you believe you have a good understanding of the accessibility guidelines and generally understand how to correct accessibility errors on the pages you create?

💡 Insights

Yes	10
No	7
I don't maintain any part of th...	31



28. What should be the top priority for technology in Central Services?

💡 Insights
36

Responses

Latest Responses

"Dependability."

"Address the need of the users"

6 respondents (17%) answered **tools** for this question.

Word cloud showing responses for the top priority for technology in Central Services. The most prominent words are **tools**, **staff**, **support**, **training**, **needs**, **access**, **technology training**, **Computer**, **internet capability**, **Productivity Tools**, **refresh and tools**, **tools/applications**, **ETS**, **folks**, **preferable to training**, **tools/software**, **technical**, **use**, **training opportunities**, **Training staff**, and **support**.

29. Are you satisfied with the process for obtaining new technology?

💡 Insights



30. If you answered "no" to the previous question, please explain.

6 💡 Insights

Responses

Latest Responses

2 respondents (33%) answered **process** for this question.

memory on deployment timely communication
list but Covid19 **process** laptop order
field's software laptops are becoming workstations
big of a consideration

31. Are there new technology initiatives being discussed or implemented in your department?

💡 Insights



32. If you answered "yes" to the previous question, please describe what new initiatives are being discussed or implemented.

14 💡 Insights

Responses

Latest Responses

"SSB9, Page Builder"

"Adobe Sign"

3 respondents (21%) answered **OKTA** for this question.

classroom designs support OKTA integration training repository
reporting system Banner SaaS
contracts repository SSB9 OKTA SaaS insurance repository
Microsoft Azure Zoom OKTA and Ethos learning online learning
Adobe Sign private networking Cornerstone evaluations
Recruitment and Learning

33. Are there specific ways the district can make better use of technology to support on-site or remote work?

28 Insights
Responses

Latest Responses
"More tutorial for the users"

3 respondents (11%) answered **use** for this question.

platform users Service departments home use tool for the job
work email use support support staff
wi-fi duplication of services
financial support home internal District standard
slack channels remote workers internal forum meeting room

34. Do you have any other comments about the use of technology in Central Services or the district more broadly?

18 Insights
Responses

Latest Responses
"Use Cloud resources as much as possible"

3 respondents (17%) answered **use** for this question.

short warranties
Team Site **support** remote/telecommute home use **help** tech security
helpful USO training