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EPISD Technology Needs Assessment

Objective

The aim of this needs assessment is to comprehensively evaluate the instructional technology department at Eagle Pass Independent School District (EPISD), focusing on Professional Development and Training, Student Accessibility, Future Funding, and Device Disposal and Longevity. Data for this assessment was gathered from documents available on the district website, including campus improvement plans and budget summaries, as well as from interview responses by Mr. Patrick Salinas, Director of Instructional Technology for EPISD.

Goal

The primary goal of this assessment is to discern the current state, challenges, and opportunities within these key areas and formulate actionable recommendations and strategies. These recommendations aim to bolster technology integration, accessibility, sustainability, and effective utilization to support and advance teaching and learning across the district.

Digital Learning & Resource Identification and Usage

In Eagle Pass ISD, the digital learning environment leans more towards passive technology integration. The district prioritizes incremental steps to familiarize students with various career paths that leverage technology at the secondary level. At the primary level, EPISD focuses on implementing state-mandated curriculum through Learning.com to ensure students acquire foundational technology skills. The district also provides various technology platforms, including Pearlized Math, Sharon Wells Math, Edgenuity, Math IXL, Flocabulary, Nessy Learning,

BrainPOP, STEMscopes, iStation, Edusmart, and HMH Writables. Individual teachers can also access gamification websites like Magic School.ai, Kahoot, or Quizizz, enhanced with generative AI to aid in assignment creation and differentiated instruction. Additionally, the district has equipped the majority of its classrooms with smart boards to facilitate interactive and engaging learning experiences.

Assistive Technologies

Investments in assistive technologies in Eagle Pass ISD are mainly allocated through local campus budgets. The district employs both low-tech solutions like pencil grips and manipulatives, and high-tech solutions such as smart pens, word processors, and spell checker software to support students with diverse learning needs. The Google Suite offers translation features for Emergent Bilingual Students, and Chromebooks, along with several platforms, provide dictation, text-to-speech, and magnification features. The district is actively working to enhance accessibility and inclusivity by implementing a range of assistive technologies to empower all students in their educational journey.

Technology Infrastructure

Eagle Pass ISD operates at the maximum broadband speed available, ensuring efficient and reliable connectivity for all users. The IT department has streamlined operations by distributing roles and responsibilities across the district and has made significant upgrades to the technology infrastructure over the past two years. These upgrades, including the replacement of fiber-optic cables, servers, routers, hubs, and devices, were made possible through government

COVID-19 funding, showcasing the district's commitment to maintaining and enhancing its technology infrastructure to support and elevate teaching and learning experiences district-wide.

Professional Development

Professional development opportunities for technology integration in Eagle Pass ISD are somewhat constrained due to classroom coverage limitations. Before the COVID-19 pandemic, the district partnered with Region 20 to offer instructional coaches for technology-inclusive classrooms. Presently, the district relies more on campus administrators to foster technology integration at a local level and minimize disruptions caused by teacher absences. Teachers' proficiency in technology is gauged by their ability to effectively use available tools, such as the Google Suite. The district faces challenges in providing ongoing training and support to help teachers adapt to new technologies and software, underscoring the need for expanded professional development opportunities to bolster technology integration and effective utilization across the district.

Security and Policy

The Technology Integration Director at Eagle Pass ISD did not have specific information about the current security measures, protocols, and policies to safeguard student data and ensure the privacy and security of technology resources and infrastructure, as this responsibility lies with another department. However, staff are required to complete refresher courses on cybersecurity, including CIPA & COPPA for Teachers, a Cybersecurity Training Program, and Digital Citizenship for Educators. Regarding policy, the state of Texas does not mandate the district to formulate an individual technology plan, highlighting the necessity for comprehensive policy

development to steer and bolster technology integration, security, and effective utilization across the district.

Support Services

Support services for technology integration in Eagle Pass ISD are primarily addressed locally at campus PLCs (Professional Learning Communities). Discussions about deficiencies in teacher knowledge and technology skills are expected to take place at this level, with administrators addressing these issues as needed. In the past, the district employed a 'train the trainer' approach, where one individual would be trained and subsequently train the rest of the staff at their campus. However, this approach is not currently in use due to post-COVID-19 limitations. Despite these challenges, the district continues to explore avenues to provide ongoing training and support to help teachers adapt to new technologies and software effectively, highlighting the need for enhanced support services to facilitate and promote technology integration, accessibility, and effective utilization across the district.

Strengths

Eagle Pass ISD has demonstrated a strong commitment to enhancing its technology infrastructure by operating at the highest broadband speed available and efficiently managing operations through role distribution within the IT department. The district has also invested significantly in upgrading its technology infrastructure, including fiber-optic cables, servers, routers, hubs, and devices, using government COVID-19 funding. This dedication underscores the district's commitment to improving teaching and learning experiences across the district.

Weaknesses

However, the district faces challenges in technology integration and professional development. Professional development opportunities for technology integration are limited due to classroom coverage constraints, and there is a lack of ongoing training and support systems in place to help teachers adapt to new technologies and software effectively. Additionally, the district lacks specific information regarding current security measures, protocols, and policies to protect student data and ensure the privacy and security of technology resources and infrastructure, indicating a need for comprehensive policy development and enhanced security measures to guide and support technology integration, security, and effective utilization across the district.

Interview Data Review

1. Define Objectives and Scopes

Objective: The objective of this needs assessment is to evaluate the current state, challenges, and opportunities within the instructional technology department at Eagle Pass Independent School District (EPISD), focusing on Professional Development and Training, Student Accessibility, Future Funding, and Device Disposal and Longevity.

Scope: The scope of this needs assessment encompasses an analysis of data sourced from documents published on the district website, including campus improvement plans and summaries of appropriations from the proposed budget, as well as insights gathered from interview responses by Mr. Patrick Salinas, the Director of Instructional Technology for EPISD. The assessment aims to identify technological deficiencies, assess the effectiveness of current initiatives and strategies, and develop actionable recommendations and strategies to enhance

and support technology integration, accessibility, sustainability, and effective utilization to support and advance teaching and learning across the district

2. Gather Data

Interview: The data for this needs assessment was gathered through interview responses by Mr. Patrick Salinas, Director of Instructional Technology for EPISD.

Data Used: The data used for this assessment was sourced from documents published on the district website, campus improvement plans, and summaries of appropriations from the proposed budget.

Observations: Based on the information reviewed, observations indicate that EPISD could benefit from prioritizing and integrating technology more prominently in education, rather than relegating it to the background and depending solely on core subject areas.

3. Assess Current Technology Infrastructure

Hardware: Based on the interview with Mr. Patrick Salinas, the average lifespan of devices currently in use in EPISD is approximately 4-5 years. To determine the condition, performance, and suitability of the existing hardware for current and future needs, an inventory should be conducted. This inventory assessment of the condition and performance of computers, tablets, interactive whiteboards, and networking equipment throughout the district is completed yearly.

Software and Applications: Mr. Salinas mentioned that the district has implemented a Learning Management System (LMS) through Google and a single sign-on feature to various platforms,

enhancing accessibility for students, parents, and teachers. To evaluate the current software and applications in use and identify gaps and areas for improvement, a comprehensive review of the LMS, educational software, productivity tools, and other applications is conducted yearly by campus leaders.

Network Infrastructure: Regarding the school's network infrastructure, approximately 75% of households in the district have prominent internet access, while the remaining 25% have limited connectivity. To assess the school's network infrastructure and determine if upgrades or improvements are needed, an evaluation of Wi-Fi coverage, bandwidth, and security measures are often conducted to ensure optimal connectivity and security for all users.

4. Evaluate Technology Skills and Training Needs

Teacher and Staff Skills: Based on the interview with Mr. Patrick Salinas, the professional development opportunities for enhancing technological skills and integrating technology into the curriculum are somewhat limited due to classroom coverage constraints. Before the COVID-19 pandemic, the district collaborated with Region 20 to provide instructional coaches who conducted training sessions. To assess the current technology skills and competencies of teachers and staff and identify training needs and areas for professional development, surveys, self-assessments, or practical assessments should be conducted or yearly module training should be implemented.

Student Skills: With the recent extension of the contract with Google for up to 7 years, EPISD has made significant strides in engaging students in a more active use of technology district-wide. To evaluate the technology skills of students and determine their proficiency, surveys, assessments, or observations should be conducted to identify areas where additional

support or training may be needed to enhance and improve student proficiency in utilizing technology effectively to support their learning and academic success.

5. Identify Challenges and Barriers

Budget Constraints: According to the interview with Mr. Patrick Salinas, budget constraints impact the ability to address technological deficiencies effectively, especially given that the state of Texas does not require an individual tech integration plan. Assessing the impact of budget constraints on technology acquisition, maintenance, and upgrades is essential to understand the limitations and challenges faced by the district in providing and maintaining up-to-date technology resources.

Accessibility and Equity: The interview revealed that the district prioritizes accessibility needs for students, teachers, and staff by promoting equality and equity through various platforms. However, approximately 25% of households in the district have limited internet connectivity. Evaluating the accessibility and equity of technology resources and access to technology among students, teachers, and staff is crucial to identify gaps and barriers and develop strategies to promote digital equity and inclusion across the district. Most platforms available provide accessibility features for students that belong to special populations.

Infrastructure Limitations: Based on the interview, the district has identified internet connectivity as a significant technological deficiency, with approximately 75% of households having prominent internet access and the remaining 25% having limited connectivity. Identifying any infrastructure limitations or challenges that may hinder effective technology integration and usage is essential to ensure optimal connectivity, performance, and security for all users and to

develop and implement appropriate solutions and improvements to enhance and support technology integration and utilization across the district.

6. Analyze Data and Identify Needs

Data Analysis: Based on the interview with Mr. Patrick Salinas, Eagle Pass ISD's approach to technology integration is deeply rooted in curriculum-driven skills stipulated by the Texas Education Agency (TEA). The district has adopted a cloud-based integration model and aims to minimize teacher pullouts from classrooms due to professional development constraints. Furthermore, the district has made significant strides in engaging students through a Learning Management System (LMS) provided by Google and has plans to collaborate with external partners to enhance technology resources and infrastructure.

However, a common theme of lack of funding emerged from the interview. The state of Texas does not require an individual tech integration plan, and budget constraints impact the ability to address technological deficiencies effectively. Additionally, there is a lack of knowledge from leadership on how to successfully leverage technology into instruction, rather than passively using it in classrooms. This lack of knowledge and understanding of the importance of technology integration in instruction is evident and presents a significant challenge to enhancing and supporting technology integration, accessibility, sustainability, and effective utilization across the district.

To analyze the collected data and identify common themes, trends, and patterns related to technology needs, challenges, and priorities, a detailed review of the interview responses, documents published on the district website, campus improvement plans, summaries of

appropriations from the proposed budget, and additional information provided by Mr. Salinas should be conducted.

Prioritize Needs: Prioritizing the identified needs based on their impact, urgency, and feasibility is essential to develop a comprehensive list of recommendations and action steps to address the technological deficiencies and challenges faced by the district. The prioritization should consider the current state of technology integration, professional development opportunities, budget constraints, accessibility and equity of technology resources, infrastructure limitations, and the district's strategic goals and objectives for technology integration and improvement.

7. Possible Technology Plan for EPISD

Strategic Goals and Objectives

- Goal 1: Enhance Professional Development and Training
    - Objective 1.1: Expand professional development opportunities to increase teachers' proficiency in integrating technology into classroom instruction.
    - Objective 1.2: Implement ongoing training and support systems to help teachers adapt to new technologies and software effectively.
- Goal 2: Improve Student Accessibility
    - Objective 2.1: Enhance accessibility features and resources to ensure equitable access to technology for all students, including Emergent Bilingual Students.
    - Objective 2.2: Promote the use of assistive technologies to support students with diverse learning needs.
- Goal 3: Optimize Technology Infrastructure
    - Objective 3.1: Regularly assess and upgrade hardware, software, and network infrastructure to meet current and future needs.

    - Objective 3.2: Implement robust security measures, protocols, and policies to protect student data and ensure the privacy and security of technology resources and infrastructure.
- Goal 4: Foster Collaborative Learning Environments
    - Objective 4.1: Encourage the active use of technology through collaborative and interactive learning experiences.
    - Objective 4.2: Leverage available platforms and tools to enhance student engagement and learning outcomes.

Action Plan

1. Enhance Professional Development and Training
    a. Collaborate with Region 20 or similar organizations to provide instructional coaches for technology-inclusive classrooms.
    b. Develop and implement a 'train the trainer' approach for technology integration.
    c. Provide ongoing training and support for teachers through campus administrators, focusing on active integration of technology in classroom instruction.
2. Improve Student Accessibility
    a. Allocate funds for high-tech accessibility tools such as smart pens, word processors, and spell checker software.
    b. Utilize the Google Suite and other platforms with translation, dictation, and text-to-speech features to support Emergent Bilingual Students.
    c. Provide training for teachers on how to effectively utilize these tools to support students with diverse learning needs.
3. Optimize Technology Infrastructure

a. Regularly inventory and assess existing hardware, software, and networking equipment to determine their condition, performance, and suitability for current and future needs.
b. Develop and implement a plan to upgrade and maintain technology infrastructure, including hardware, software, and networking equipment, based on the identified needs and priorities.
c. Collaborate with the IT department to review and update security measures, protocols, and policies to protect student data and ensure the privacy and security of technology resources and infrastructure.

4. Foster Collaborative Learning Environments
    a. Encourage the active use of available platforms and tools such as Pearlized Math, Sharon Wells Math, Edgenuity, Math IXL, Flocabulary, Nessy Learning, BrainPOP, STEMscopes, iStation, EduSmart, and HMH Writables.
    b. Explore and invest in gamification websites enhanced with generative AI to help with the creation of assignments and differentiation of instruction.
    c. Promote the use of Smart Boards and other interactive tools to enhance collaborative and interactive learning experiences for students.

<u>Budget and Resources</u>

- Hardware: Allocate funds for the purchase and maintenance of computers, tablets, interactive whiteboards, and networking equipment based on the inventory assessment and identified needs.
- Software and Applications: Budget for the procurement and renewal of licenses for Learning Management Systems (LMS), educational software, and productivity tools to fill gaps and improve existing systems.

- Training and Professional Development: Set aside funds for the development and implementation of professional development programs, training sessions, and ongoing support systems for teachers and staff.
- Security Measures: Budget for the implementation and maintenance of robust security measures, protocols, and policies to protect student data and ensure the privacy and security of technology resources and infrastructure.

EdTech Interview

Mr. Patrick Salinas (CIO)

Director of Technology EPISD

1. **Can you describe the current state of technology integration in our schools?**

At Eagle Pass ISD, our approach to technology integration in schools is deeply rooted in curriculum-driven skills as stipulated by the Texas Education Agency (TEA). We have adopted a cloud-based integration model, where technology application skills are not just taught as standalone subjects but are seamlessly integrated into the classroom instruction. Unlike before, the state of Texas no longer mandates a separate technology plan for schools. Therefore, our technology direction is predominantly driven by the specific needs of our curriculum, ensuring that technology serves as a tool to enhance and support learning across all subjects.

2. **What are the most significant technological deficiencies you have identified within our community, as opposed to similar districts in our area and what are some technological advances that you feel Eagle Pass has an advantage on as opposed to those other districts?**

In comparing Eagle Pass ISD to similar districts in our area, one of the most significant technological deficiencies we've identified is internet connectivity. Approximately 75% of households in our district have prominent internet access, while the remaining 25% have limited connectivity. However, we are proactive in addressing this issue by leveraging funding opportunities, offering government funding discounts, and actively encouraging families to apply for these programs.

On the other hand, Eagle Pass ISD has distinct advantages in certain technological advances. Our commitment to leveraging funding for improving connectivity in underserved households sets us apart from other districts. Additionally, our cloud-based technology integration approach, aligned with TEA curriculum-driven skills, allows us to provide students with a more comprehensive and adaptable learning environment. This forward-thinking approach positions us favorably in preparing our students for a technology-driven world.

3. **What professional development opportunities are provided to teachers to enhance their technological skills and integration of technology and facilitation of digital learning in the curriculum?**

Our professional development opportunities for enhancing technological skills and integrating technology into the curriculum are somewhat limited due to classroom coverage constraints. Before the COVID-19 pandemic, we collaborated with Region 20 to provide instructional coaches who conducted training sessions to help our educators create more technology-inclusive classrooms. Currently, we rely more on our campus administrators to target technology integration at a local level. We aim to minimize the disruption caused by teacher pullouts from classrooms, which has led us to adapt our professional development strategies to better suit our current needs and challenges.

4. **How do you ensure that teachers are competent and confident in utilizing available technologies to support student learning?**

We ensure that teachers are competent and confident in utilizing available technologies to support student learning primarily through application. If teachers are able to effectively function within the environment we require and use the different systems we have in place, they are demonstrating their proficiency. For instance, if a teacher can utilize the Google Suite to send and retrieve assignments, that in itself shows a certain level of proficiency. While there isn't a specific test that we can give to measure a teacher's knowledge in technology usage, their ability to effectively use the tools available to them is a strong indicator of their competence and confidence in integrating technology into their teaching practices.

5. **How are the needs of teachers transitioning from passive to active integration of technology in their classrooms being addressed, are there ongoing training and support systems in place to help teachers adapt to new technologies and software?**

The needs of teachers transitioning from passive to active integration of technology in their classrooms are primarily addressed through available coursework designed to train teachers on how to use technology. However, it's important to note that the state does not mandate a certain minimum knowledge level, and thus our district does not provide any coursework for educators. Conversations

about deficiencies in teacher knowledge should be happening locally at campus PLCs (Professional Learning Communities), and administrators should address these issues accordingly. In the past, we utilized a 'train the trainer' approach, where one person would be trained and then would subsequently train the rest of the staff at their campus. Due to our current limitations post-COVID, we are unable to implement this approach at the moment. Despite these challenges, we continue to seek ways to provide ongoing training and support to help teachers adapt to new technologies and software as effectively as possible.

6. **With the availability of 1:1 devices for students per class, what is being done district-wide to engage students in a more active use of this technology?**

With the recent extension of our contract with Google for up to 7 years, we have made significant strides in engaging students in a more active use of technology district-wide. We have implemented a Learning Management System (LMS) through Google and a single sign-on feature to various platforms. This has greatly enhanced accessibility for students, parents, and teachers, making it easier for them to actively use technology in the classroom. With 1:1 devices available for students in each class, we are committed to leveraging these resources effectively to promote interactive and engaging learning experiences.

7. **How do budget constraints impact your ability to address these technological deficiencies effectively?**

Budget constraints do impact our ability to address technological deficiencies effectively, especially given that the state of Texas does not require an individual tech integration plan. We primarily depend on the core subject areas to cooperate with us in making investments with technology in mind. However, due to proposed budget cuts associated with the governor's proposed voucher system, the state currently has an estimated $30 million surplus that has been withheld from our public schools, directly affecting our district.

8. **Can you discuss any challenges or issues the school district has faced in budgeting for technology due to the shorter lifespan of certain devices, how do you balance the need for new technology with budget constraints?**

One of the challenges we face in budgeting for technology is the shorter lifespan of certain devices. We are just beginning to witness the student technology turnover, with the average lifespan of a Chromebook being 4-5 years. Teachers and administrators must keep tabs on this turnover and budget for replacements accordingly. Although I don't have specific information about budgeting for hardware, as that falls under a different department, balancing the need for new technology with budget constraints is a continuous challenge that we strive to manage effectively.At times we resort to residual funding to obtain the technology that is no longer functioning properly.

9. **Are there any grant opportunities or funding sources specifically designated for educational technology that the school district has utilized?**

While we don't have a specific budget allocated for educational technology, we have been able to secure funding through various Federal sources to support our technological initiatives. We have utilized funding from Title 1 programs, federal grants, and ERate discounts and funding. Although ERate funding may not provide us with the freedom to purchase devices directly, it allows us to invest in and augment our network infrastructure, which is crucial for supporting the integration and use of technology in our schools.

10. **What plans or strategies are in place to continue improving technology integration within Eagle Pass ISD?**

Our plan to continue improving technology integration within Eagle Pass ISD revolves around collaborating closely with our core subjects to leverage technology into the curriculum. Rather than isolating tech skills, we aim to incorporate them seamlessly through a blended approach. By integrating technology in this manner, we can ensure that it becomes an integral part of the learning process, enhancing both teaching and learning experiences for our students.

11. **Are there any plans to collaborate with external partners, such as technology companies or non-profit organizations, to enhance technology resources and infrastructure?**

There have indeed been ongoing plans to collaborate with external partners, such as technology companies and non-profit organizations, to enhance technology resources and infrastructure within Eagle Pass ISD. Mr. Camarillo and Mr. Cox have been working diligently for

many years to engage the county and the city in joint efforts to improve infrastructure throughout our community. However, some of these attempts have not come to fruition due to differences in views or political considerations. Nonetheless, discussions about potential projects are ongoing, and we remain committed to exploring collaborative opportunities to enhance our technology resources and infrastructure.

12. **What factors do you consider when making decisions about purchasing new technology or updating existing hardware?**

When making decisions about purchasing new technology or updating existing hardware, we primarily consider the individual needs of each campus. Given our limited purchasing power, we prioritize investments based on the specific requirements and priorities of each school, ensuring that the technology acquired aligns closely with the instructional goals and technological needs of our educators and students.

13. **What is the average lifespan of the devices (e.g., laptops, tablets, interactive whiteboards) currently in use in our school district?**

The average lifespan of the devices currently in use in our school district is approximately 4-5 years.

14. **How do you determine when it's time to replace or upgrade hardware?**

When determining when it's time to replace or upgrade hardware, we rely on the campus needs assessments that are submitted at the end of each school year. Our administrators then analyze these assessments in collaboration with campus leaders to determine the necessary upgrades or replacements.

15. **What measures are taken to extend the lifespan of our technology investments?**

To extend the lifespan of our technology investments, we ensure that technology is issued to individual students, making them responsible for the care of their devices. This helps in maintaining the condition and longevity of the equipment

16. **How do you handle the disposal or recycling of outdated or non-functional technology equipment?**

Regarding the disposal or recycling of outdated or non-functional technology equipment, all tech is stored at a warehouse where it is categorized. It is either used for parts throughout the district or auctioned off to the highest bidder to recoup some of the investment costs. This approach allows us to maximize the use of our technology assets and responsibly manage the disposal of outdated equipment.

17. **How does the school district currently address accessibility needs for students, teachers, and staff?**

The school district prioritizes accessibility needs for students, teachers, and staff by promoting equality and equity through the various platforms that the district has invested in. Additionally, many of the new platforms we use offer accessibility features specifically designed to accommodate the needs of our students. By integrating these features into our technology platforms, we aim to ensure that all students, teachers, and staff have equal access to the resources and tools they need to succeed.

18. **What initiatives or programs are in place to close the digital divide within the school district?**

To address the digital divide within the school district, we have implemented several initiatives and programs. Parental involvement meetings are actively encouraged at the campus level to keep parents informed, and teachers are better able to establish communication with households. By modeling expectations to students, teachers enable them to learn through application, bridging the digital divide through hands-on experience.

Additionally, we used to have a parent resource center before the COVID-19 pandemic. Unfortunately, due to a lack of funding, we had to close the program. Despite this setback, we continue to explore new ways to promote digital equity and provide support to students and families in accessing and utilizing technology effectively.

19. What specific technologies or tools has the school district invested in to enhance accessibility for students with disabilities?

Same answer as question 6

20. What strategies or programs are in place to provide access to technology and internet connectivity for students who lack these resources at home?

See question 11 for reference. Conversations and attempts are currently taking place.

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