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Pivoting to On-Line Teaching in the Riverside Unified School District[1]

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The move to online instruction during the COVID-19 pandemic shed light on a longstanding digital divide amongst schools in K12 education. The Riverside Unified School District (RUSD) was one of thousands of school districts across the country that had to quickly adapt to a virtual learning environment. This endeavor proved difficult for several reasons. Many RUSD students lacked access to home computers and adequate internet connections. Furthermore, parents were tasked with a new responsibility of navigating home-schooling and tech support to facilitate their children's education during remote learning. Teachers had to expand their technical knowledge to provide effective education and stay in touch with their students' parents. RUSD began implementing digital inclusion initiatives prior to the pandemic, including a collaboration with the School2Home (S2H) Program. This case study reviews how the RUSD and its S2H participating schools took steps to mitigate the digital divide. An evaluation of RUSD and its S2H schools suggests important recommendations on how digital inclusion programs can provide sustainable digital inclusivity for all students, parents, and teachers.

1. Overview

a. The Riverside Unified School District

The Riverside Unified School District (RUSD) is the 16th largest California school district with nearly 42,000 students across 50 schools and specialty schools, including elementary, middle, high school grade levels ("What is Local," 2022). The district boasts a 97% graduation rate, encompasses eight dual language immersion schools, and includes 30 California Distinguished Schools, among other accolades ("Our District," 2022). The district's population is predominantly Hispanic/Latino (66.2%). 19.1% of the student population are White, 4.7% are Asian/Pacific Islander, and 5.9% are Black ("Overview of Riverside Unified School District," 2022). Nearly half (48.1%) of the RUSD student population comes from low-income backgrounds and relies on free or reduced-price lunches and 18.2% are English language learners ("Overview of Riverside Unified School District," 2022).

[1] *Acknowledgements*: Unless noted otherwise, the information in this case study is drawn from interviews with RUSD and S2H representatives. We would like in particular to thank Dr. Steve Kong, Steve Morris, and Agustin Urgiles for participating in these interviews. Steve Morris was a RUSD teacher for 29 years before becoming one of three School2Home's Senior Program Managers, an educational consultant organization that manages three RUSD Middle Schools, and was interviewed November 15, 2021; Agustin Urgiles is the Executive Manager of S2H, and was interviewed on Friday, Nov 19, 2021; Dr. Steve Kong is the Coordinator of Digital Learning for the Riverside Unified School District and was interviewed on Monday, Nov 22, 2021. Any errors or omissions in this document are solely the authors' responsibility.

2. RUSD's Digital Landscape

Before the pandemic, 94.9% of households within RUSD subscribed to broadband internet ("ACS-ED Maps," 2015-19, n.d.). However, digital device access varied across schools in the RUSD. According to our interviewees, whereas some schools boasted a 1:1 student/device ratio, in others, only one of four students had access to a device. When RUSD schools suspended in-person instruction during the pandemic, a parent survey revealed that over 12,000 students (29% of the district population) lacked a device to connect to the internet. Low-income, foster youth, unstably housed, and ESL students lacked devices the most ("Learning Continuity Learning Continuity and Attendance Plan Template (2020–-21)," 2020).

During the pandemic, RUSD collected all available Chromebooks within the district's classrooms and redistributed them to all students. Between April and September 2020, RUSD distributed 28,000 Chromebooks and 2,200 hotspots ("Annual Update LCAP 2021-22," 2021). With these efforts, RUSD was able to ensure that every student had a connected device they could use for distance learning ("Annual Update LCAP 2021-22," 2021). To ensure the students had access to the internet, RUSD Program Specialists and Site Administrators provided a device or hotspot to any family who reported a need, regardless of income ("Annual Update LCAP 2021-22," 2021). The district also purchased additional laptops, tablets, wifi hotspots, and headsets for students and staff. The most recent Local Control and Accountability Plan (LCAP) shows RUSD spent just over $11M on additional devices for students and teachers during the 2020-2021 fiscal year ("Annual Update LCAP 2021-22," 2021). Overall, the district spent over $23M, which equates to approximately $550 per student as it pivoted to provide distance learning during the pandemic. The bulk of these funds were used to purchase equipment for students and teachers, and to hire new staff (see tables 1 and 2, Appendix A). However, providing access to digital devices was a critical step, RUSD also needed to offer extra training and support for parents now directly responsible for their child's online learning.

Table 1: 2020-21 Expenses Related to the Distance Learning Program.

Category	Estimated Actual Expenditures (2020-21 academic year)	Expenditures per student
Equipment	$11,069,742	$264
Staff	$8,948,127	$213
Software	$1,562,242	$37
Training	$1,012,749	$24
Misc	$602,081	$14
Grand Total	**$23,194,941**	**$552**

Source: Authors' calculation based on data from the 2021-22 LCAP (reproduced in Appendix A.)

Table 2: 2020-21 Expenses Related to the Distance Learning Program.

Primary beneficiaries	Estimated Actual Expenditures (2020-21 academic year)	Percent
Students	$11,205,283	48%
Students & Teachers	$4,560,787	20%
Teachers	$4,546,983	20%
Classroom	$2,881,888	12%
Grand Total	$23,194,941	100%

Note: Expenses related to Students include the purchase of additional devices, distribution of textbooks, or digital language support for English learners. Expenses related to Students & Teachers Inc.

a. RUSD Initiatives for Parents

To support parents' transition to online learning, RUSD created a troubleshooting hotline and a family technology website ("Virtual Program Support," n.d.). When parents picked up their child's laptop, they received a notecard with instructions on how they could receive technology support. 8 to 10 trained staff members managed the hotline and answered parent questions. The hotline helped not only parents resolve hardware or software issues, but also teachers who had children of their own enrolled in RUSD schools (and thus qualified as "parents" as well) and teachers who needed help for their classes. Half of the hotline workers were also fluent in Spanish so non-English monolingual households could receive timely support.

In addition to technology support, RUSD also provided information to parents on how they could apply for internet service providers' (ISP) low-cost programs. RUSD and the California Emerging Technology Fund (CETF)[2] assigned one teacher to provide parent workshops on how parents could apply for affordable broadband programs such as Frontier's *Affordable Broadband*, Spectrum's *Internet Assist* or Sprint's *1Million Program*. This assistance helped families apply, but enrollment was often slow and time-consuming. Furthermore, many families reported that they received unexpected charges from the ISPs and had to cancel services they could not afford.

Finally, RUSD also provided parent digital literacy training and encouraged families to use school devices beyond the purposes of their children's schoolwork. During fall 2021, RUSD received an additional donation of 500 Chromebook laptops from Frontier which were distributed through the RUSD's Family Resource Center as well as to and Central, Chemawa, and University Heights middle schools. Upon receiving the Chromebook, parents also received Chromebook training from RUSD's Innovation and Learning Engagement Department ("RUSD Receives Donation," 2021). Upon completing the training, parents were allowed to keep their Chromebooks permanently. Today, RUSD Family Resource Center offers workshops that trained parents on the basics of computer use. Parents who complete at least 8 hours of instruction are given a refurbished computer to keep ("Digital Equity," 2022). These workshops familiarize parents with the student portals so they can check their children's attendance and grades. The program also teaches other essential internet skills, including how to use email, compare broadband services, troubleshoot devices, and apply for jobs online. The Riverside Unified School YouTube channel offers a series of "Family Tech Tip" videos that offer both

[2] CETF is a nonprofit corporation whose mission is to close California's digital divide through policy change and providing internet technology resources to underserved communities ("Mission and History," 2022).

students and parents resources on navigating online resources needed for school.[3] All of these resources are provided both English and Spanish ("Technology Resources," n.d.).

b. RUSD Distance Learning Platforms

The Chromebooks and tablets that RUSD loaned to families came with preinstalled software that allowed access to the school's cloud applications such as Pear Deck, GoGuardian, Google Classroom, or Clever (see appendix C for details). At the beginning of the pandemic, these programs were provided for free to school districts. Several months later, however, providers began charging schools a licensing fee, and the district's administration had to consider which programs they would renew by evaluating teacher-student utility and pricing. *Clever* supports access to classes, as well as teachers, students, and parents' interactions. *Flipgrid* supports asynchronous teacher-student interaction – RUSD chose to purchase a *Flipgrid* license because of its asynchronous design and because it worked concurrently with the learning management systems of their choosing.

c. RUSD Targeting Key Populations

Surveys conducted by the School District during the pandemic found that several key populations lacked access to devices. These groups included English learners who had more difficulty accessing online instruction, academic resources, or understanding concepts taught in virtual classrooms, and those who required headsets to block unnecessary background noise for concentration. The district responded to these needs by purchasing headsets and language-learning programs such as Rosetta Stone to supplement these students' online learning needs. RUSD also implemented a digital citizenship lessons for all students, including English learners, to understand how to safely use online resources ("Learning Continuity and Attendance Plan Template (2020–21)," 2020). Since RUSD did not have enough translation services for this population, the district created 22 school site interpreter-translator positions ("Annual Update LCAP 2021-22," 2021).

RUSD also received funding from the state of California. Before the pandemic, the district had access to their California Expanded Learning Opportunities (ELO) grant, along with the Elementary and Secondary School Emergency Relief Programs (ESSR)[4] to provide after-school tutoring, virtually or one-on-one for all students (California Department of Education [CDE], 2021). Both funding sources offered needed support to address the concerns of parents, students, and teachers related to transitioning into virtual learning. After the initial months of online learning, a reassessment took place to understand where digital gaps persisted ("Expanded Learning Opportunities Grants Strategies," 2021).

RUSD's LCAP Advisory Committee met during the 2020-21 academic year to address student needs through the Elementary and Secondary School Emergency Relief Programs (ESSER) II and Expanded Learning Opportunities (ELO) funding proposals. Meetings with the RUSD African American Parent Advisory Committee (AAPAC), the Riverside Council Parent Teacher Association, and the parents from the Gifted and Talented Education District Advisory Committee revealed that parents believed that providing access to devices and the internet should be prioritized. (CDE, 2021). The LCAP 2021-22 Annual Update reported persisting challenges in device distribution for non-English speaking

[3] Videos and webinars can be found here: https://riversideunified.org/parents/family_resource_center/family_webinars and https://www.youtube.com/c/RiversideUSD/videos

[4] The Expanded Learning Opportunities (ELO) Grant is funded by California's Department of Education, federal funding provided in part by the Elementary and Secondary School Emergency Relief Programs (ESSER) to support impoverished and houseless student struggles and support greater learning outcomes.

parents who did not have enough access to bilingual technical assistance. Foster youth and students with disabilities also had difficulties accessing technological assistance during online learning despite the additional staff that was hired ("Annual Update LCAP 2021-22," 2021).

From this feedback, RUSD identified the following ESSER funding priorities for learning recovery, which can also be found in Appendix B's infographic ("ESSER & ELO Documents," 2022):

- Consistent internet and technology access
- District-wide tutoring
- Support for English learner students and their families.
- Learning loss mitigation
- Social-emotional health support

One of RUSD's initiatives to pursue these priorities has been its partnership with the School2Home program.

3. School2Home Partnership

CETF and The Children's Partnership (a a California Non-Profit Corporation) established School2Home in 2009 in collaboration with the California Department of Education (CDE) and other broadband stakeholders ("School2Home," 2022). Over the past ten years, S2H worked with 12 districts and reached more than 14,000 students and 600 teachers in high-poverty areas ("School2Home," 2022).

a. School2Home Model & Processes

S2H's approach rests on ten core components (Lemke & Britten, 2019). As shown in Table 3, S2H focuses on providing technology training and internet resources for parents, professional mentorship for teachers, and lessons on mobilizing technical support for students ("Implementation Guide," 2022).

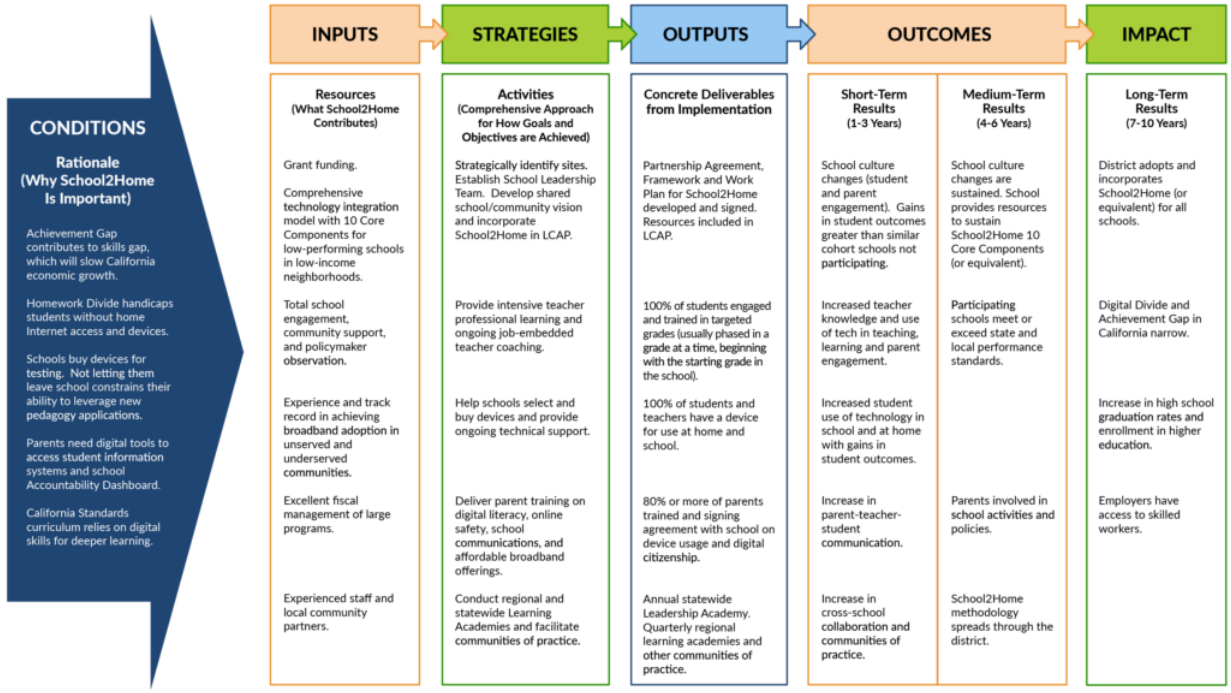
Table 3: School2Home 10 Core Components for successful implementation

School2Home 10 Core Components	Description
1. School Leadership, Assessment and Planning	Guidance on how to build a school leadership team capable of assessing needs such as identifying resources and implementation efforts for future improvements.
2. Technology Bundles for Students and Teachers	Tools and guidance for providing a digital device to every student to use at home, including support for school procurement, inventory, management, maintenance and replacement.
3. Teacher Professional Learning	Eight learning modules to support teacher proficiency with technology meant to support student and parent engagement.
4. Coaching and Mentoring	Coaching for teachers to enhance their knowledge of how instructional technology will complement their subject-matter expertise.
5. Parent Engagement and Education	Six modules to support parent education and engagement with their children's technology, home-school communication, and internet resources.
6. Student Tech Expert Development	Elective class or after-school club training students to serve as technology experts. Covers tools, technical knowledge, and "soft skills".
7. Online Resources	Online resources to support students, teachers, and families to maximize asynchronous and remote learning.
8. Learning Academies	Building alumni networks for partner schools to increase the S2H mission.
9. Affordable Home Internet Access	Guidance and tools for supporting households that had not previously subscribed to high-speed broadband services.
10. Evaluation	Tools for developing and implementing comprehensive evaluations to facilitate the continued improvement of tech integration through data.

Source: https://School2Home.org/implementation-guide/#main.

School2Home's program is driven by a theory of change that defines the inputs, outputs, and expected outcomes (short, medium, and long-term goals) shown in Figure 1. Each strategy or "activity" produces outputs that have a net positive influence on students and the state. For example, S2H helps deliver parent workshops on digital literacy, school communications, and affordable broadband options such as EBB ("Implementation Guide," 2022). As a direct "output" of these activities, parents are fully trained on how to use their child's school digital device. Eventual "outcomes" are improved teacher-parent communication that enable parents to become active participants in their child's education. S2H claims that building a culture of engagement between parents and their child's teachers and school is critical for producing positive outcomes.

Figure 1: School2Home's logic model



Source: https://School2Home.org/about/#logic

S2H particularly emphasizes engagement between teachers and parents. Parent workshops help parents understand how a wired home broadband connection can better support their child's online learning needs. S2H helps schools build capacity with step-by-step parent assistance on how to apply for affordable broadband plans such as EBB. Coordinated parent workshops also address parents' concerns about how much time their children spent on digital devices by teaching parents about how digital devices and the internet are needed for their child's educational growth. Overall, S2H's logic model (Figure 1) shows how such engagement programs complement the provision of devices and training to yield more academically engaged students and more knowledgeable teachers, ultimately resulting in better integration of technology in the curriculum. They result in greater long-term impacts as measured through increased high school graduation rates and a narrowing of the digital divide. [5]

S2H conducts on-going evaluations through surveys that measure teachers, parents, and students' perceptions of the initiative. Surveys targeted at teachers aim to measure how comfortable teachers are with using technology in their classrooms, particularly as it pertains to the areas covered in S2H's professionalization and mentorship components as well as teachers' comfort levels for engaging with parents. Surveys targeted at parents aim to measure how familiar parents are with the objectives covered in the S2H workshops, such as the navigation of student information systems, online safety measures, and engagement with the school. Questions also seek to understand how parents obtain internet access during the school year by distinguishing access from school hotspots and affordable broadband programs for attaining internet at home.

[5] See the Annual Evaluation Reports for School2Home at https://school2home.org/resources-and-research/evaluation-reports/

Surveys for students aim to measure the impact of student engagement in the classroom, students' comfort levels with technology, and the type of activities for which students employ technology in the classroom, and so on.

The S2H program's flexibility and framework supported an accelerated implementation rate among all partner schools. S2H intends to work with schools for three to five years, and once partner schools have successfully 'graduated,' they become members of an alumni network that supports newer partner schools' transition into the S2H 10 Core Components Model.

Table 4 lists the estimated annual costs of the S2H program for a typical school of 500 students which amounts to $86,831 on an annual basis, with an extra $6,000 start-up cost required for schools new to the program. This amounts to approximately $180 per student per year.

Table 4: Estimated S2H implementation costs

Category	Description	Cost per School/Year
Core Program	Program Management , Coordination, and Evaluation	$80,831
School Implementation	Miscellaneous Expenses Related to Implementation of Core Components	$6,000
	Total, On-Going School	**$86,831**
Special Needs	Student Tech Experts licenses, computer parts, workshop refreshments, flyers, banners: $6,000 for new schools.	$6,000
	Total, New School	**$92,831**
	Average cost per student - on-going school (500 students)	$174
	Average cost per student for new school (500 students)	$186

Source: School2Home staff interview

b. School2Home within the Riverside Unified School District

Three RUSD middle schools participate in the School2Home (S2H) program: Central, Chemawa, and University Heights Middle Schools.

Central Middle School (CMS) began participating in 2010, and during the 2016-17 school year offered Chromebooks to their 7th and 8th-grade students. As part of the "technology coach" core component, CMS provided students with a Tech Coach and a student learning management system so students could to check their assignments and access resources. The School received a waiver from the California State Board of Education to make textbooks available on the students' digital devices. 99% of parents participated in digital literacy workshops during the 2016-2017 school year (Cradler et al., n.d.).

Chemawa Middle School began participating in 2012. RUSD also received a waiver allowing it to convert textbooks to an online format rather than distributing hard-copies; the school provided devices to all 973 seventh and eighth graders (Cradler et al., n.d.). The school also implemented courses aimed at target populations, including Spanish-speaking technology courses for parents and professional development for teachers (Cradler et al., n.d.). About 97% of parents participated in S2H workshops (Cradler et al., n.d.). The school incorporated S2H's implementation planning into regular staff meetings. The, RUSD has supported implementation by providing the school with a

PowerSchool learning management system. This platform allows students to access online resources related to daily assignments.

University Heights Middle School began participating in 2013 by purchasing Chromebooks for all their seventh and eighth-grade students. Teachers attended S2H workshops on how technology can be used for student engagement and how to utilize strategies for culturally-competent parent engagement ("Implementation Guide," 2022). University Heights reported that 99% of parents attended education workshops (Cradler et al., n.d.).

c. School2Home: RUSD & COVID-19 Response

When the COVID-19 pandemic forced the district to transition to remote learning, S2H partner schools were able to implement their training to support students and households.[6] RUSD surveys showed that students were familiar with digital tools and applications needed for online learning and that teachers believed previous training on digital learning platforms prepared them well to teach online during the pandemic. Overall, S2H had positive outcomes for both parents and students. Parents reported they routinely checked the child's Google Classroom, emails from teachers, and school websites. Over 98% of S2H students participated in at least one or more distance learning activities -- in-class discussions, conducting research online, or using digital learning applications, among other activities (Lemke & Britten, 2019). S2H's successful implementation of its ten core components is worth noting as districts like RUSD continue to reassess how digital access contributes to overall parent and student outcomes.

4. Evaluation of the Case

a. RUSD's Response to the Digital Divide

RUSD is an example of what bridging the digital divide can look like through a multi-pronged approach that prioritizes equal access to the internet.

Responding to vulnerable populations. The district realized that students needed assistance with internet access. RUSD initially prioritized low-income students, English learners, foster youth and homeless students for hotspot distribution. The district understood that some working parents had access to the internet but could not afford to buy laptops for their child(ren). RUSD provided Chromebooks to all households who requested them.

Coordinated Support for Parents, Teachers, and Students. RUSD worked to develop parents' digital literacy skills so parents could support their child's at-home learning. RUSD provided digital literacy workshops, a helpline, and a website dedicated to online resources. The website, in English and Spanish, provided a one-stop information resource for parents about their child's online learning experience such as instructions on using a Chromebook, digital training workshops, and online tutoring resources. In addition to workshops, technological support hotlines helped ease the digital learning curve for parents, students, and teachers. Although interviews conducted with RUSD administrators stated their primary goal was to provide a timely response, there are no metrics tracking response time. School officials we interviewed speculated this might result from the fact that teachers used the parent/student hotlines rather than relying on staff tech support. While this cannot be confirmed, it is worth considering implementing dedicated support channels for different populations.

[6] 2019-2020 School2Home Evaluation Report - https://drive.google.com/file/d/1Mb-pxRPR3W3DzkJ4_MjcmZV2m7EC_ZYr/view

Partnerships. RUSD worked with several partners to expand internet access for parents and students. CETF was one instrumental partner that engaged with RUSD through programs such as the Frontier Chromebook distribution. This partnership provided not only access to digital devices but also an incentive for parents to participate in computer literacy workshops. Several ISPs provided families with discounted or 'free' services during the pandemic. However, families sometimes incurred hidden costs several months into the pandemic and were financially burdened because they did not initially understand that they signed up for extended internet trials. This issue reveals that parents need support in better understanding how to apply for broadband subsidies and low-cost plans.

School2Home's Response to the Digital Divide. Long before the pandemic, S2H realized that providing internet and digital devices was not enough and created a comprehensive program for students, parents, teachers and school staff. When the pandemic forced the transition to on-line, students in the three middle schools who partnered with S2H were already comfortable with distance learning platforms and understood how to utilize online tools to their educational advantage (Lemke & Britten, 2019). Parents had been trained on using digital devices and felt comfortable engaging with their child's school (Lemke & Britten, 2019). The "parent engagement and education" component of S2H's 10 core components provided parents with resources on internet plans. S2H identified points of contact at each S2H campus to ensure parents could ask follow-up questions or request step-by-step assistance. Finally, S2H's "coaching and mentoring" components taught teachers how instructional technology could support their pedagogy.

5. Conclusions

Schools serve as important channels for connecting unconnected or underconnected households. Schools have a direct stake in making sure that their students have adequate access to devices, connections, and the requisite skills to make use of them. Furthermore, schools can effectively convey information to families about digital inclusion programs, along with training on how best to take advantage of subsidized programs. Schools can also directly extend training on digital tools and services to students' families. The lessons RUSD learned during the pandemic offer benefits that extend beyond the pandemic to offer a particularly effective way to promote digital inclusion in school districts that serve vulnerable populations.

This case study highlights this potential in several dimensions:

Expand Internet Connectivity. Schools can promote connectivity by distributing hotspots to students' families and by disseminating information to families about subsidized broadband services they are eligible for, such as the federal Affordable Connectivity Program (ACP) or California's Lifeline program.

Offer a trusted resource. Applications for internet benefits and subscription to internet services can be daunting for families unfamiliar with such processes. Schools can present themselves as trusted partners by providing workshops that help families navigate the process along with helplines they can turn to.

Promote internet access and digital literacy beyond the classroom. Encouraging parents to take advantage of the devices and connectivity they receive for their children's education plays an

important role in promoting family success. Schools can explicitly state that families can use computing devices beyond schoolwork and provide digital literacy training for parents on topics beyond what is strictly needed to support their child's education.

Expand Multilingual Resources. In school districts like RUSD, which serve a large proportion of families whose primary language is not English, it proves essential to provide information in multiple languages and staff hotlines with multilingual experts.

Expand support for families experiencing hardships. School facilities, including libraries and study rooms are vital resources for unstably housed students and adults as they can provide connectivity, or outlets for simply charging one's phone.

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About the project

This policy brief is part of the Measuring the Effectiveness of Digital Inclusion Approaches (MEDIA) project, a research program that seeks to analyze existing broadband inclusion initiatives and provide evidence-based recommendations on how best to connect low-income households to broadband on a sustainable basis. This policy brief is the second in a series of publications based on results from the program.

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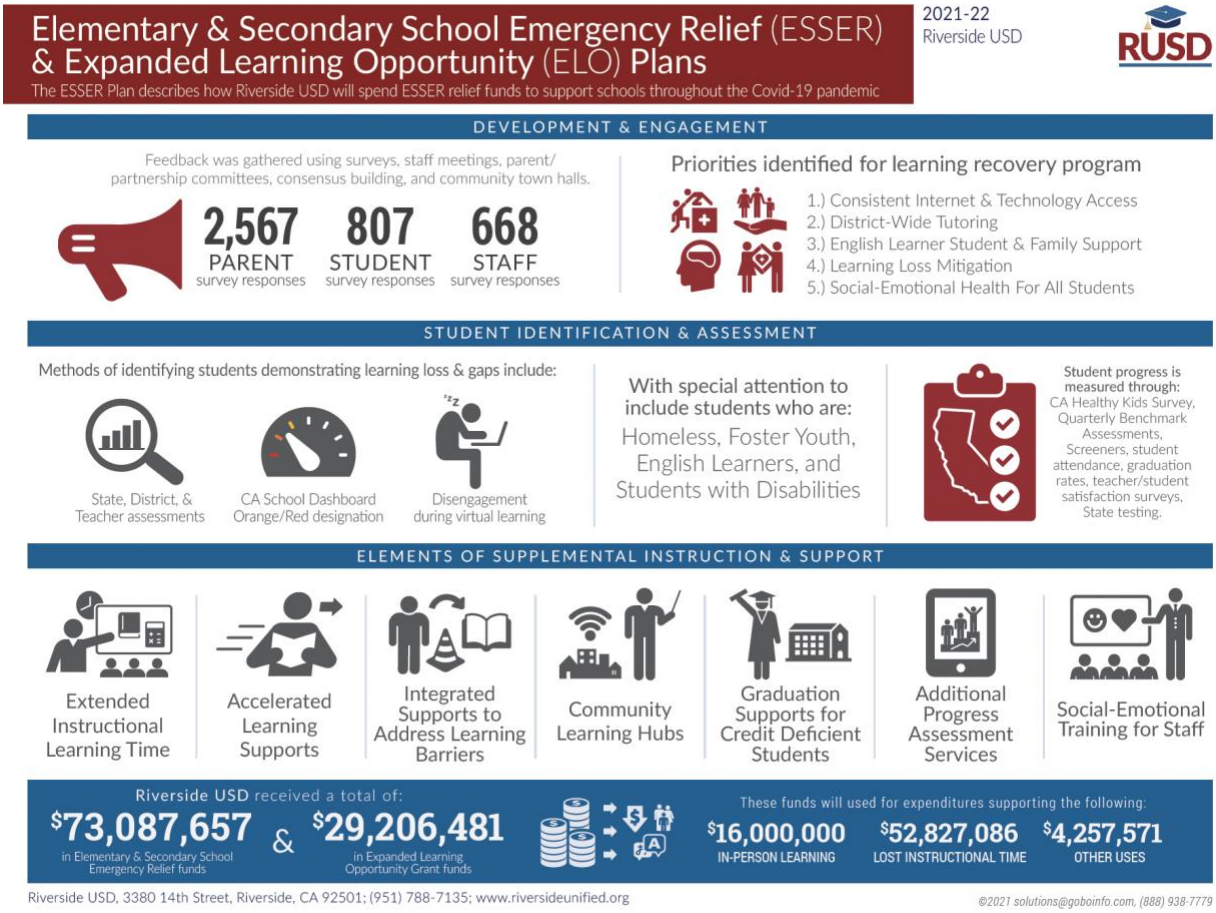
Appendix A: RUSD Expenses Related to the Distance Learning Program (2020-21)

Description	Total Budgeted Funds	Estimated Actual Expenditures	Category (1)	Primary beneficiaries (2)
1.Purchase additional devices , Chromebooks for students . These devices mainly benefit low-income, EL, and Foster Youth students, for whom the purchase of this equipment would be prohibitive.	7,000,500	$5,256,907	Equipment	Students
2.Additional Technology to Support Distance Learning: WiFi hotspots, headsets, and laptops/devices for staff.	3,000,000	$4,549,649	Equipment	Students & Teachers
3.Assistive technology for Students with Disabilities to access distance learning instruction from home and professional development for staff	2,000,000	$11,138	Equipment	Students &Teachers
4.Supplemental Online Apps to support distance learning including but not limited to Great minds, Brain Pop, Snap and Read	500,000	$1,029,290	Software	Classroom
5.See Saw, Kami, Zoom	500,000	$141,764	Software	Classroom
6.Musical Instruments UV Cleaning to provide instruments for all students, mainly benefitting low income and foster students for whom the purchase of this equipment would be prohibitive.	50,000	$18,648	Misc	Students
7.Staff hours for the collection, sanitation,processing, and distribution of textbooks	28,000	$3,758,883	Staff	Students
8.Basic school supplies sent to all families which will mainly benefit vulnerable populations	1,800,000	$383,699	Misc	Students
9.Printed instructional packets provided weekly in the spring to support learning for students who did not yet have internet access	200,000	$199,734	Misc	Students
10.Foster Youth Services: Maintain staffing and supports that specifically address Foster Youth needs	500,000	$0	Staff	Students
11.Attendance and Student Engagement	100,000	$0	Misc	Classroom
12.PD for 700 non long term subs on virtual/distance learning	964,500	$51,881	Training	Teachers
13.Distance Learning Curriculum Development in the spring to support teachers to maintain student learning during school closure	250,000	$18,917	Training	Teachers
14.Fall professional development for teachers (RISE) to learn effective virtual instructional practices	1,000,000	$665,309	Training	Teachers
15.Additional teachers for program choices	4,000,000	$3,810,876	Staff	Teachers
16.Coordinator for virtual school - New coordinator to oversee the distance instruction and learning	225,000	$56,557	Staff	Students
17.Four Assistant Principals liaisons to support distance and in-school learning	500,000	244,958	Staff	Students
18.Rosetta Stone for English Learners - Digital language support for English Learners and DLI students	120,000	$124,533	Software	Students
19. Digital Citizenship PD, Digital Literacy PD	279,000	$276,642	Training	Students
20. 1 Full Time Help Desk Analyst	121,407	$120,611	Staff	Students
21. Tech 1/1 devices	420,000	$662,581	Equipment	Students
22. Tech - Teacher/Classroom technology	780,000	$487,937	Equipment	Classroom
23. Two Staff Developers, Help Desk Assistant, Instructional Technology Technician	429,412	$418,477	Staff	Classroom
24.Digital inclusion, internet access for all, maintenance of equipment (Communication Trades)	20,000	$101,530	Equipment	Students
25. Maintenance Workers	91,616	$90,546	Staff	Classroom
26. Technology procurement specialist	86,624	$62,783	Staff	Classroom
27. Internet safety software and disaster recovery	275,000	$266,655	Software	Classroom

28. Data Quality Technicians	198,338	$196,597	Staff	Classroom
30. Digital communication-digital content specialist	189,016	$187,839	Staff	Classroom

Source: Annual Update for Developing the 2021-22 Local Control and Accountability Plan. (2021). Riverside Unified School District, pp. 167-169
(https://www.riversideunified.org/common/pages/DisplayFile.aspx?itemId=20642912)
Categorization in the last two column by authors

Appendix B



Source: RUSD ESSER & ELO Documents
(https://www.riversideunified.org/departments/equity__access__and_community_engagement/local_control_and_accountability_plan/esser_elo_documents)

Appendix C: RUSD Cloud Platforms

Programs used by RUSD during remote learning	Description
Pear Deck Interactive	A program that works with Google Slides to allow teachers to embed interactive questions, audios, and animations into their slides. The program enables teachers to share slides with each other and offers teachers real-time view of individual student work.
GoGuardian	A program that can be paired with Pear Deck and Google Classroom to deliver live instruction to students, allowing teachers to know what students on doing and to help keep them on track. The program allows teachers to see what students are doing on their devices, and to identify and correct off-task behaviors through automatic alerts. It also supports device monitoring for students when teachers need to work one-on-one with students.
Google Classroom	An all-in-one platform for teachers, students, and parents to connect to each other in one central destination. It is compatible with programs like Pear Deck Interactive and GoGuardian, to track students' progress and grades, and export this data to the school's student information system. It also allows teachers to schedule tasks, assignments, and quizzes across multiple classes, asynchronously.
Clever	All-in-one digital learning platform for teachers, parents, and students to connect to each other. The program allows teachers to intuitively personalize and organize their digital classrooms, and students benefit from being able to access the course materials and curriculum online. Parents also have a central location to stay in touch with their teachers through chat features or by setting up reminders, from a laptop or through the mobile app. The app is also compatible with asynchronous use and pricing ranges from $16-19 per school, contingent on how many schools in the district are enrolling in the program.

Source: Descriptions and price models from the platform websites.