Innovations and Adaptations Inspired through COVID-19 Constraints: A Rural Cross-Project Summary

May 2022



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Introduction

The COVID-19 pandemic presented schools and education systems with unforeseen challenges. In the face of pandemic hardships and obstacles, Education Innovation and Research (EIR) grantees have devised a variety of creative alternative methods, activities, and solutions to continue implementing their projects. While many pandemic-inspired changes were meant to be temporary solutions, some of the solutions have been successful in helping grantees achieve their program goals. This paper focuses on rural grantees, who face a variety of challenges, such as inconsistent internet access, teacher shortages, and limited opportunities for educators to collaborate and receive feedback due to distance from others. Some of these challenges are greatly exacerbated by the pandemic. We heard from twelve EIR grantees working with rural populations about the innovations and adaptations that they have created and intend to keep post-pandemic due to their versatility and success. These practices can be grouped into five categories: 1) going hybrid, 2) partnering with corporations, 3) making custom, in-house learning management system platforms, 4) prioritizing collegial relationships, and 5) preventing teacher burnout.

1) Going Hybrid

Rural schools have always faced issues with distance to professional development (PD) events, coaching sites, school events, and in-person communities of practice. During the pandemic, several EIR grantees transitioned their program to a virtual environment, with some moving to a hybrid model as restrictions eased. These hybrid programs were the perfect long-term solution for rural grantees with transportation challenges.

Hybrid Teacher Professional Learning

Several EIR grantees made changes to in-person teacher professional development and moved to a remote or hybrid learning format:

- PAL Classrooms at the University of Missouri
- Catalyzing Innovations in Teacher Leader Development in Rural and Urban Setting at the New Teacher Center (NTC)
- Partners to Lead (PTL) at DuPage Regional Office of Education
- Advancing Rural Computer Science at Old Dominion University Center for Education Partnerships
- Project ENGAGE (Effectively Narrowing Gaps and Growing Engagement) at Osage County Interlocal Cooperative
- Developing a Student-Driven STEM and Computer Science Curriculum for Rural Students at Sonoma State University

"In both our rural sites there are over 6,500 square miles between the schools we serve so we've worked hard to continue using Zoom where appropriate to minimize travel time and duplicate trips to maximize time available for coaching support with teachers."

—**Jeffrey Homan**, Project Director of Catalyzing Innovations in Teacher Leader Development in Rural and Urban Settings "Teachers have enjoyed this [hybrid] model as it offers a lot of flexibility with scheduling and time along with the benefits of building a professional learning community via in-person sessions and virtual"

—**Cara Wylie**, Project Director of PAL Classrooms at the University of Missouri

In many instances, a revised approach to teacher professional development included a hybrid model of in-person synchronous and virtual self-paced professional development. For example, previous multi-day, in-person trainings became shorter learning and collaboration sessions held virtually throughout the year. Some projects have added asynchronous webinars and self-paced learning to their PD, allowing teachers the opportunity to participate remotely. These revised professional learning formats can be augmented by either in-person or virtual coaching.

EIR grantees showed incredible resilience and flexibility in the face of the pandemic and all its challenges as they moved their project work online. This was keenly felt in rural settings, where there is often a love/hate relationship with virtual environments for professional learning.

"They absolutely crave interactions with subject matter experts and peers outside of their district/area and virtual learning opens the door to that while not requiring them to take time away from their building to travel long distances. But they also feel that online learning is a poor alternative to in-person learning, and far too often the folks facilitating the learning have no understanding of the rural context. That is why we had started with a hybrid model -some in-person/some online, but also provided opportunities for them to meet in person within their region as well as other opportunities to interact with participants from across the state. Bottom line, our rural partners do not want to be served in an entirely virtual environment and our services would be less relevant and targeted were it not for the time that was spent building peer networks and providing on-site, jobembedded learning opportunities with experienced and well-trained coaches."

Alicia Haller, Director of Partners To Lead (PTL) at DuPage Regional Office of Education

Fully online professional development has many benefits. It can allow more flexibility in planning and improve access. Teachers can attend from their school or home without needing to travel. Lack of travel to online sessions can also reduce the need for substitutes.

However, fully online professional development also has downsides such as limiting relationship-building, "real" connections, hands-on activities, and interactive exercises. This may be why grantees report that hybrid professional development has been generally well-received. As Jeffrey Homan, Project Director of the New Teacher Center, notes, "connections made during in-person convenings added a lot of value to the experience and depth of learning by participants. In light of this feedback, we will likely plan for a blend of approaches as we move forward in the project." Hybrid professional development appears to enjoy the best of both worlds- the flexibility and access of online learning and the ability to make connections in person.

Catalyzing Innovations in Teacher Leader Development in Rural and Urban Settings, New Teacher Center, Project Director Jeffrey Homan

The NTC's approach is a scalable instructional coaching program that prepares instructional coaches to accelerate teachers' instructional practices through job-embedded coaching and supports that focus on improving student achievement.

Hybrid Observation

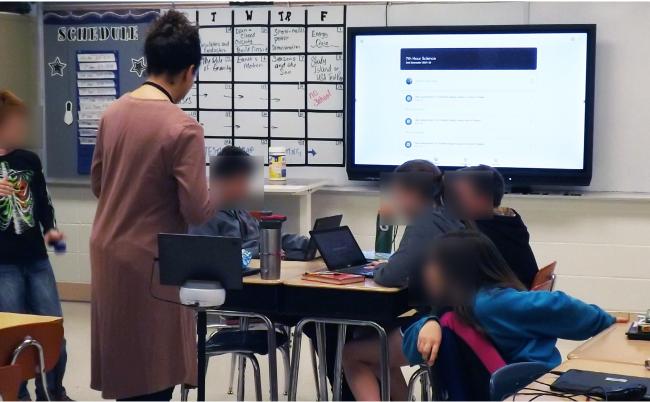
Classroom observation is a common component of coaching interventions and evaluation design. In rural districts where a coach or evaluator must visit multiple schools, transportation time between schools and scheduling can be a major challenge. During the pandemic, the use of video recordings in coaching observations and evaluations was one way a few projects were able to continue to implement with fidelity and also avoid the long travel times.

<u>ProSocial and Active Learning (PAL) Classrooms, Curators of the University of Missouri Special Trust, Project Director Cara Wylie</u>

In the PAL Classroom Project, teachers discover new tools to help students learn socially acceptable behaviors and classroom expectations. These practical everyday strategies help students enhance their self-awareness so they can develop positive social skills and greater self-control. Teachers also learn how to design and facilitate active learning experiences that support their current curriculum which provide opportunities for students to practice using positive social skills while working with others.

Three projects responded to challenges presented by the pandemic by utilizing hybrid or virtual observations. The ProSocial and Active Learning (PAL) project planned to use in-person classroom observations to measure the effectiveness of PAL classroom strategies that increase students' prosocial behavior. When researchers were not able to go into classrooms, they pivoted to using Swivl, a robotic platform that can be used for recording presentations or class lectures. Teachers can connect a smartphone, tablet, or DSLR camera and use the Swivl app to record videos of their classroom. Cara Wylie, the project director, noted, "we have found the data we have collected has been very rich and robust and reduces the cost of in-person observations, especially because it allows us to observe more than one time per year." Both Sonoma State University's "Developing a Student-Driven STEM and Computer Science Curriculum for Rural Students" and the New Teacher Center's "Catalyzing Innovations in Teacher Leader Development in Rural and Urban Settings" began using a hybrid of virtual and in-person classroom observation methods. For these projects, virtual observations used their existing online coaching platform to capture notes and document progress across in-field support sessions.





A 5th grade classroom where the teacher is utilizing the Swivl to collect data for external evaluators as well as promote self-reflection.



A professional development session in which PAL utilized the SwivI to livestream the PD to remote learners.

Photos courtesy of the PAL Classrooms project.

When conducting virtual observations through recordings, schools need to consider their existing technology, access to broadband internet, the capacity of school technology directors to support or troubleshoot potential problems, time for setting up devices, time for viewing recordings, and how to obtain teacher consent to being recorded. Teachers should also be trained to use the recording devices.

Jeffrey Homan, Project Director of the New Teacher Center, shared their pedagogical approach for easing educators into using virtual observation methods and developing buy-in.

Roadmap for onboarding teachers to virtual observation

- 1. Discuss the parallel process between teacher growth and coach growth and reiterate that recording and reflecting on feedback is one of the best ways to support ourselves and students to grow and improve.
- 2. Walk through the process in a step-by-step fashion so the teacher and coach are clear about what to record, what evidence will be collected, and how that evidence and reflection will be used.
- 3. Encourage teachers to watch their recording before coaching conversations so they are familiar with and can reflect on the recording. This additional viewing opportunity helped teachers feel more comfortable and better prepared for the conversation with the coach.

Homan shared how virtual observation benefits their program: "NTC's in-field coaching process requires substantial time for pre-conferencing and post-conferencing, in addition to the observations themselves. Leveraging virtual meetings via Zoom allows for pre- and post-conferencing to take place at flexible times. In the case of observing coaching practice, viewing a recording or virtually observing is also feasible and efficient."

While virtual observations can be feasible and efficient, there are also trust and comfort barriers that must be addressed. Homan noted, "initially there was a little pushback by teachers who were considering having their practice recorded. To overcome that, the first and likely most important thing was having teachers start by selecting and recording one part of the lesson that was most important for them to receive feedback based on their focus area. Once teachers self-selected and felt more comfortable with the process, they were more willing to record entire lessons going forward." In an educator-coach or partner-evaluator relationship that centers on the feedback process, it is especially important to foster trust, understanding, and strong interpersonal relationships. The need to foster trust was important before COVID-19, but is even more important now so teachers do not feel they are being policed from a distance. Trusting relationships may help improve teacher satisfaction and increase retention.

Hybrid Family Engagement

COVID-19 prevented grantees from hosting large, in-person events. However, rural districts encountered challenges with family events before the pandemic, such as low attendance and engagement by families, teachers, and principals. Offering hybrid family engagement events has helped bridge the gap for those who were previously unable to attend in-person events while still offering the benefits of in-person interactions at live events.

<u>Future Forward Early Literacy Program</u>, Education Analytics, Project Director Kate Bauer-Jones

The Future Forward Early Literacy Program integrates the research-proven strategies of one-on-one tutoring, family engagement, and after-school programming into its design. This project scales the program across a tri-state network of 15 high-need, low-performing schools across 7 LEAs through a technology-enabled Future Forward Center to test the effect of the Future Forward intervention by evaluating its impact, replicability, and sustainability in this network of rural and urban communities, with 8 of the 15 Future Forward sites (53%) in rural schools.

Education Analytics, Inc's Future Forward Center: Scaling and Validating a Research-Based Cost-Effective Literacy Intervention program began hosting hybrid family engagement events during the pandemic and plans to continue to do so after the pandemic. Project Director Kate Bauer-Jones shared, "What we saw was particularly successful in the 2020-21 school year and what we'll continue to do is that we host virtual family events as part of our program every month. When we do family events in person, we do a literacy activity, arts and crafts, and we have a meal. We would mail all of that out to the families ahead of time- we'd send them gift certificates for food. It was really successful. Families would show up, eat their food, and the kids would talk and the teachers and principals were there. So now in most of our locations, we're doing them half and half. We're doing half of them in

person because we do still think that there's value in that community and physically coming together. But we're doing half of them virtually and they both seem to be well attended. And I think that families appreciate having options and having that flexibility."

Offering hybrid family events can increase access and participation from rural communities due to the greater flexibility. "Families really seem to like them and they were really well attended," Bauer-Jones shared. "We found that we had greater participation, particularly from our school colleagues, and it was easier for teachers and school leadership to show up in the evenings for these events on Zoom."

2) Partnering with Corporations

Limited access to technology and broadband internet affected many during the pandemic, but particularly those living and working in rural settings (Stenhoff et al., 2020). To tackle the internet access problem, Texas A&M University's VICTORY Project partnered with Verizon to provide internet access for economically challenged (EC) rural families. "The initial proposal called for the project to provide MiFi devices (portable hotspots) and wireless service to our EC rural families, but partnering with Verizon allows us to defray some of those costs and has helped us conserve funding for other project expenses, such as the technology for teachers and students," shared Project Director Rafael Lara-Alecio. The internet access partnership with Verizon is in place during implementation and will remain in place through the expiration of their grant in December 2023.

Project VICTORY, Texas A&M, Project Director Rafael Lara-Alecio

Project Virtually-Infused Collaborations for Teaching and Learning Opportunities for Rural Youth (VICTORY) works with Texas rural districts to enhance STEM learning, starting in third grade and ending in fifth. They serve teachers, students, and families by building instructional capacity and improving students' science and literacy performance via a randomized control trial study and determining differences between virtual/online and face-to-face teaching and learning.

Project Director Lara-Alecio provided the following guidance on how to start a corporate partnership.

Roadmap for establishing a partnership with an internet provider

- 1. Reach out to schedule meetings with multiple providers.
- 2. Identify the students/families your grant is serving and any unique characteristics of the population (economically challenged, rural, emergent bilinguals).
- 3. Discuss the project budget for specific services and the amount of cost-match needed to meet the goals in serving the target population.
- 4. Discuss how the partnership may be mutually beneficial.
- 5. Discuss unique terms of the partnership agreement.
- 6. Identify the primary contact for the wireless provider and develop good communication (email, text, phone calls) to work out agreement details and foster an ongoing partnership.

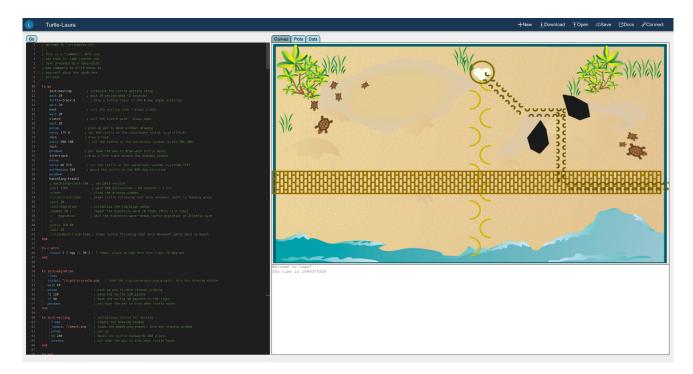
3) Designing Custom Platforms

For spread-out rural programs serving large populations, creating a custom platform for a project can decrease the cost per student and create opportunities for scaling. During the pandemic, some grantees created new in-house platforms which allowed for customization of the program and reallocation of grant funds toward providing more devices for students without.

Developing a Student-Driven STEM and Computer Science Curriculum for Rural Students also referred to as "Learning by Making" or LbyM, Sonoma State University, Project Director Lynn Cominsky

Sonoma State developed STEM-based computer science pathways and work-based learning experiences for rural and high-need students in northern California. This project builds on their innovative STEM curriculum, Learning by Making (LbyM) which has been shown to improve student achievement among high-need, rural students. LbyM implements strategies to increase the number and quality of STEM-educated workers and provides innovative solutions to the challenges faced by high-need students in rural regions.

Originally, Sonoma State University's Learning by Making Project had a server in each classroom and provided special laptops that could access the server to be used by a pair of students. Syncing updates required the use of the classroom server. During the pandemic, when students could not access the classrooms or servers, the project team coded their own solution: "We developed a browser-based "web app" for student use in accessing the hardware tools needed for the project," shared Project Director, Lynn Cominsky. "The web app is needed to be able to scale the project by reducing the cost per student, however, we did not intend to implement it in the classroom prior to year 5 of the grant. It has been extremely successful and we are planning on continuing to develop and use it. You can try out the web app here: http://app.lbym.org. We quickly moved to a networked, cloud-based solution for updates, and we intend to continue to use this system going forward."



This image shows the result of a simulation of the life of a female sea turtle. The simulation was written using the Turtle Logo language as part of the Learning by Making (LbyM) integrated CSTEM curriculum developed by Sonoma State University. The LbyM web app can also send and receive signals from experimental sensors wired to the LbyM Basic Board. Using the sensors together with code written in the Logo language, 9th-grade rural students in California are conducting a variety of different scientific experiments with themes including Water & Soil, and Light & Energy.

Credit: Sonoma State University/EdEon/Learning by Making/C. Lewiston (web developer), A. Simonnet

(illustrator), L. Peticolas (turtle simulation author), L. Cominsky (Project Director).

Rural Connect, NEFEC, Project Director Ronda Bourn

Rural Connect provides a platform for cross-district, teacher-led learning and practice-connected support that is crucial to the growth and retention of educators in small, rural districts through a network of regional learning communities focused on integrating literacy into content-area curriculum.

NEFEC's Rural Connect Project built its own learning management system. "COVID has also pushed us to ramp up the final phase of our project called Practice Connected Support (PCS)," Project Director Ronda Bourn said. "In using so many more virtual options, we are now building our own learning management system to support PCS through the creation and housing of virtual resources, courses, learning communities, etc. This will give us a platform for sustainability and scaling that we had not initially envisioned."



Practice Connected Support 2022-23



Practice Connected Support

Practice Connected Support (2022-2023)

This course is designed as a follow-up to the 2021-2022 Rural Connect Sessions. Participants will use this course to reinforce the skills and methods acquired during Rural Connect and to onboard new strategies and knowledge that will be helpful in their continuing practice. As they navigate the course content, participants will have opportunities to interact with other teachers, coaches, and administrators around pertinent topics as well as share and benefit from shared ideas and teaching resources.

Access

This is the course tile on the landing page and the first thing participants will see when they log in. They will click "Access" to open the modules.









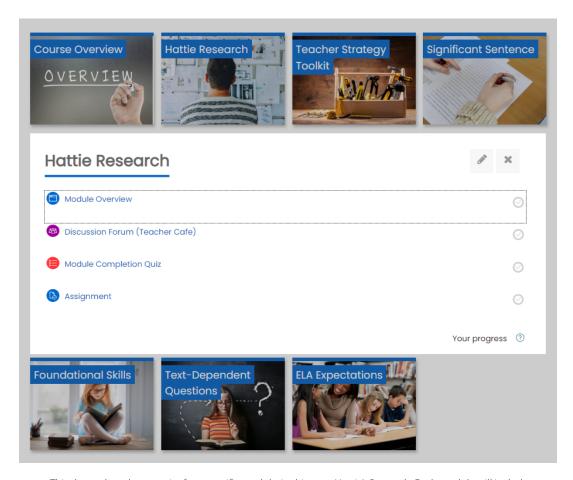








This is one of the module landing pages. From here participants can see all the course modules tiles in one place and can move freely between them.



This shows the subcategories for a specific module: in this case, Hattie's Research. Each module will include the same four elements (overview, discussion forum, quiz, and assignment). We can add additional elements as needed.

Screenshots of the learning management system, courtesy of the Rural Connect project.

In developing the Professional Learning by Choice Community (CHOICE) project model, Virginia Ed Strategies considered the barriers of distance, cost, and time that have traditionally negatively impacted rural teacher participation in professional development activities and their implementation of new, innovative practices; this has been even more true during the pandemic. Recognizing teachers need more than just training to grow professionally, the project team at Virginia Ed Strategies has worked diligently to ensure CHOICE provides the necessary supports for success.

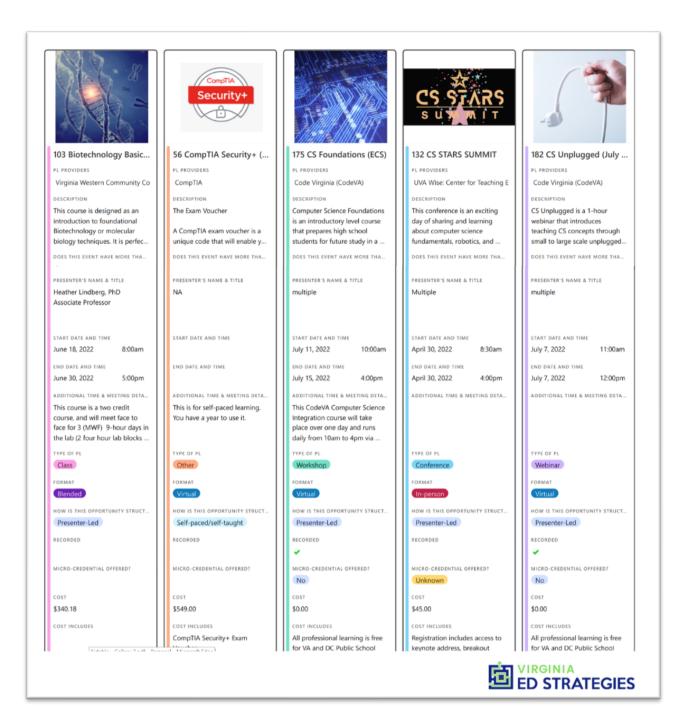
<u>Professional Learning by Choice (CHOICE)</u>, Virginia Ed Strategies, Project Director Jennifer Stevens

This research and development project seeks to build the sustainable teacher effectiveness capacity of up to 1,600 secondary science, mathematics, computer science, and STEM career and technical (CTE) teachers across the Commonwealth of Virginia through teacher-directed selection of professional learning experiences within a virtual professional learning community (PLC).

One key mechanism of the project is the CHOICE Dashboard, a customized online platform that serves as the gateway to the overall CHOICE Professional Learning Community (PLC) as well as its Communities of Practice (CoPs). The CHOICE Dashboard is how teachers across the state stay virtually connected to all parts of the program and establish a network of fellow teachers to collaborate, share, and commiserate with as they navigate the challenges of participating in professional learning and implementing what they have learned in their classrooms. In addition, the CHOICE Dashboard enables connections and interactions with CHOICE CoP Facilitators and Content Specialists who provide ongoing support and expertise as needed, and it allows project staff to easily track a multitude of data important to measuring project success. Within the CHOICE Dashboard is a comprehensive, everevolving menu of professional learning opportunities offered in a variety of modes from providers across Virginia and beyond; this menu enables teachers to self-select the learning experiences that best meet their individual needs and utilize the grant funds available to them without incurring upfront cost. Jennifer Stevens, CHOICE Project Director, shared: "Our CHOICE Dashboard is a powerful tool for teacher autonomy and empowerment as it allows them to search and filter multiple components related to PL so that they can find the formats, times, costs, and providers that fit their professional goals and personal aspirations. We are excited about the possibilities of sustaining this critical resource beyond the time frame of the EIR project because it meets so many needs relative to supporting the professional growth of teachers."



Shown above is a screenshot of the CHOICE Dashboard from the vantage point of participating teachers entering their virtual CoPs. From here, they can access all program resources, interact with project staff and peers, participate in meetings and discussion boards, and select professional learning opportunities to attend using their allotted grant funding.



Shown above is a view of the CHOICE Dashboard Menu which provides a searchable database of professional learning opportunities from which teachers select based on their preferences and needs. Each PL item is tagged with characteristics such as cost, format (i.e., in person or virtual, asynchronous or live, etc.), dates of the offering, provider's name, topic(s) covered, alignment with Virginia performance standards, and other important information to help teachers find exactly what they need when they need it. Once a teacher selects a PL to attend, project staff is alerted to register and pay for the opportunity on the teacher's behalf, reducing the upfront out-of-pocket cost for the educator.

Screenshots of the dashboard courtesy of Virginia Ed Strategies.

4) Fostering Collegial Relationships

The small size of rural schools and distance between schools can make it difficult for educators with a subject area specialty to build relationships with same-subject mentors within their school and collaborate with same-subject peers from other schools. During the pandemic, some grantees developed innovative solutions to strengthen their communities and increase collaborative experiences that will work post-pandemic. These solutions include permanently moving to smaller meeting groups that allow for greater bonding, creating collaboration resources, and developing teacher leaders.

Flexibility in Meetings to Prioritize Relationships

Originally, The Rural Early College Network (RECN) at the University of Indianapolis had planned to host four in-person Network meetings in Indianapolis per year, inviting all twenty schools in the project to bring their school leadership teams. The twenty schools included the five designated mentor schools that were already implementing successful Early College programs, five cohort 1 mentee schools, five cohort 2 mentee schools, and five cohort 3 mentee schools. Constraints on inperson meetings and collaboration during the height of the pandemic led them to break their one large group meeting into smaller groups called Quads. A Quad is a mentor school with three partner schools from each cohort. This facilitated a great bonding experience for all. "The schools LOVED seeing one another again, and frankly it was a bonding time for them." shared Janet Boyle. "We ended up doing 3 sets of Quad meetings during the 2020-2021 school year. It's worked well, and we will continue this in the two years remaining of the project!"









Quads in session in April, 2022. Photos courtesy of RECN.

<u>Rural Early College Network</u>, University of Indianapolis, Project Director Janet Boyle

This project expands the Early College high school model to several schools. Through a system of supports, coaching, and network approach, RECN uses the model to increase college readiness and postsecondary acceptance, increase career readiness and opportunities, and increase efficiencies to build the capacity of RECN schools.

In addition to the change from large group meetings to Quad meetings, RECN also allowed principals more time in bi-monthly meetings to share challenges they were facing. These challenges were often more about COVID—PPE, masks, social distancing, how to quarantine, etc. The impact of providing these network opportunities was that the principals bonded and started to rely on each other for support. The project director noted "Now they call and email each other, an outcome we hoped would happen by year 5 but was achieved in year 1. As a result, they all look forward to seeing each other and catching up at our in-person meetings. We also have never had a school or principal or team not be present for any of our meetings and we are finishing Year 3!"

Collaboration Resources

<u>Partners to Lead</u>, DuPage Regional Office of Education, Director Alicia Haller

Partners To Lead (PTL) engages principals and other school leaders in 56 public schools in rural, suburban, and urban settings across the state to increase principal effectiveness in performance areas that lead to increases in student achievement, particularly in rural and high-need schools. The PTL project implements leadership support systems that empower principals to more effectively engage teachers and staff in schoolwide instructional improvement efforts.

Another example of new teacher collaboration came from DuPage Regional Office of Education #19's Partners to Lead project. Alicia Haller shared, "While our project is specifically focused on principal effectiveness, our internal design team developed some open-sourced COVID recovery materials that include tools and resources for teacher teams to collaborate across grade bands in order to identify and address learning gaps by focusing on priority learning standards and adapting the scope and sequence of spiraled curricula. These were identified by our partners as not just good practice in light of COVID, but good practice for schools as part of their continuous improvement work!"

Teacher Leaders

University of Indianapolis' Rural Early College Network encountered difficulty connecting teachers with the grant project since teachers were stressed and overwhelmed from dealing with the pandemic. To support their teachers, they selected co-leaders of each academic subject to run their own small group meetings.

Boyle elaborated, "Teachers like working with their peers, yet many want someone else to "take charge." We observed the first few years in their role groups who tended to be leaders and then I contacted them individually to ask if they would co-lead their subject group. They all said yes (about 16 people). The other teachers appreciated this and like talking about what their needs are for PD. The next steps are to get them to take more ownership in co-learning together on topics of interest. Hopefully, next year will be less stressful for teachers and we can move forward on this."

5) Supporting Burned-out Teachers

The uncertainty, stress, and toll of the pandemic has created exhausted and burned-out educators, many of whom are now choosing to leave the education profession completely. This effect has been felt most heavily in rural areas that were already experiencing a teacher and substitute shortage along with the history of lower pay and lack of resources. In order to recruit and retain teachers participating in federally-funded projects, EIR grantees are having to consider ways to provide additional supports and flexibility. In developing the Professional Learning by Choice Community (CHOICE) project model, Virginia Ed Strategies has integrated multiple support mechanisms and even shifted funds to

¹ See webinar and materials at https://leadingedpartnerships.org/covid-19-school-resources/. There is also a short video by one of Partners to Lead's partners put together that highlights the project's work during COVID: https://www.youtube.com/watch?v=NPY_lzu8StY.

ensure that participating teachers have what they need for professional growth. Jennifer Stevens, the Project Director of CHOICE, shared: "Our CHOICE model already had an overall professional learning community (PLC) and multiple communities of practice (CoPs) in place to give teachers a virtual environment in which to learn, grow, and collaborate with peers statewide. But our pilot study helped us realize that teachers needed more assistance than they were getting. We shifted project funds to allow for payments to additional CoP Facilitators and Content Specialists which translates to more support and individualized attention for our participants when they need it most."

Arizona State University's COMPUGIRLS Remixed project is prepared to respond to the dwindling teacher workforce exacerbated by the pandemic. They created a full-year course that can be implemented asynchronously online. Dr. Tara Nkrumah, Acting Executive Director of the program said, "In preparation for teacher shortage, we are providing a full-year course that can be implemented asynchronously online. Some key successes we observed in the online/virtual option of the CompuPower program have been the ease of access for rural communities to participate. Our online/virtual program has supported student participation in field trips and mentoring with industry leaders that might not have been available because of travel expenses."

<u>COMPUGIRLS Remixed: Developing a Culturally Responsive Social System,</u> Arizona State University, Acting Executive Director Dr. Tara Nkrumah

CompuGirls introduces adolescent students to the fields of science, technology, engineering, and mathematics (STEM) through innovative teaching techniques, social justice, and the latest technologies. By providing access to resources not otherwise available, CompuGirls helps adolescent students develop the skills needed to become the next generation of tech innovators and community leaders

Conclusion

Pre-pandemic, rural grantees faced challenges such as physical distance from other schools, teachers, or resources; limited internet access; teacher shortages; and limited opportunities for educators to collaborate due to small departments. The pandemic exacerbated these challenges, finally catalyzing innovations and adaptations to implementation that solved issues stemming from both the pandemic and the rural environment. These practices include going hybrid, partnering with corporations, making custom platforms, fostering collegial relationships, and preventing teacher burnout. More research is necessary on the effects of the pandemic and distance learning on educational entities, especially rural districts with limited resources. The rural EIR grantees highlighted in this paper demonstrate that with some creativity, determination, and coordination, outside-the-box innovations are possible to implement using the skillsets of the existing personnel.

Citations/Links

Stenhoff, D. M., Pennington, R. C., & Tapp, M. C. (2020). Distance education support for students with autism spectrum disorder and complex needs during COVID-19 and school closures. *Rural Special Education Quarterly*, 39(4), 211-219.