

Navigating the Digital Age during Covid-19: Strategies for Building Teacher Resilience

Contributors:

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Audience: School & District Leaders; Educator Preparation Programs; Policymakers

Topic: The Covid-19 pandemic presented unique challenges to teacher retention in North Carolina’s rural public schools. This research brief provides evidence of inhibiting and supporting factors of a successful transition to emergency remote teaching (ERT) and the digital divide.

CENTRAL QUESTIONS

1. What factors inhibited or supported a successful transition to emergency remote teaching (ERT) for K-12 teachers during the Covid-19 pandemic?
2. How did the digital divide and varying access to technology among rural LEAs influence instructional strategies and pedagogy?

EVIDENCE

The Covid-19 pandemic highlighted the realities of the digital divide when schools transitioned to emergency remote teaching (ERT) in the spring of 2020. Rural school districts raced to provide their students with the tools needed to transition to virtual learning, sometimes having only 1-2 days to make the transition. Or as a superintendent in our study expressed, “*we were forced into the digital age*”, which created an intentional evaluation of the schools’ digital tools, teacher competencies and professional development.

- Literature search on the Technological Pedagogical Content Knowledge (TPACK) model
- Preliminary data from our study on workforce effectiveness in NC rural schools during the pandemic.

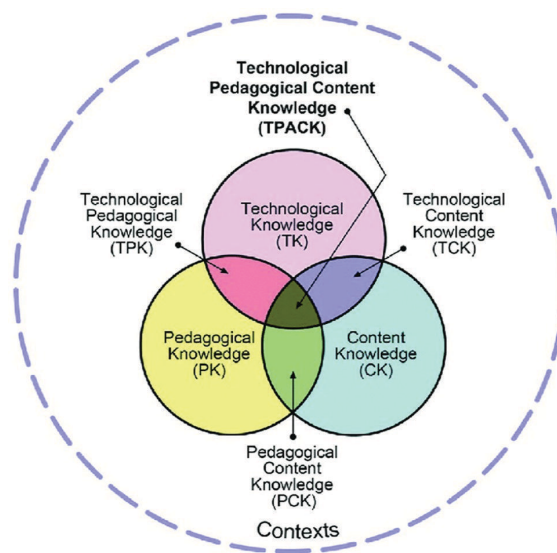


Figure 1. Technological Pedagogical Content Knowledge (TPACK). Tpack.org copyright 2012

- The Theory of Pedagogical Content Knowledge (TPACK) framework is based on Shulman’s (1986) model, which suggests that teachers need to master the pedagogy and content knowledge as well as the right technology (Mishra & Koehler, 2006).

KEY INSIGHTS

1. **Districts should support continued teachers’ TPACK development. Teachers with strong TPACK skills were better equipped to navigate the shift to ERT. Educators with higher levels of TPACK were less likely to experience job burnout and emotional drain (Rastegar, N. & Rehim, M. 2023).**

One middle grades teacher in our study commented, *“[we already had] established a technology platform. That’s why [our] county had an advantage from that standpoint.”*

Another teacher shared, *“I did take a course for using technology in education in the classroom. I had a slight advantage just having access to that coursework while I was in school.”*

Other schools perceived ERT as an opportunity to deepen their Technological Knowledge (TK).

“We’re also more technology focused now... Not only are we technology focused like we’re encouraging and like pushing [educators] to go seek out like the newest technology [and] ... that’s a huge shift from pre-pandemic.”

2. **Broadband access and uniform technological support across districts needs to be accelerated. Some rural districts lacked adequate resources for remote learning, exacerbating disparities in access to technology and the ability to deliver quality remote instruction.**

One superintendent noted *“[Access to technology is a] huge, huge concern. In a lot of rural communities, families do not have access to broadband. [Hotspots] have provided some measure of mitigation for the lack of Internet at home. It’s not going to solve everything, but it does help to kind of level the playing field for those families that do not have serviceable Internet.”*

Technological support varied across schools. As one teacher noted, *“[our school] did a very, very good job of giving instructional strategies [and] teaching technology. I don’t think that...the district, that was not a huge initiative. There was more emphasis on resources to help teachers at [our school] than at others in the district.”*

Other teachers echoed this sentiment, *“I don’t know about [supports] There was a county level help desk for the kids. I think we became our own tech support honestly.”*

3. Adopt the practices from ERT that enhance effectiveness and open communication pathways.

As NC school districts received hot spots, one principal shared *“it’s connected us I think, pretty successfully. That’s been one of the positive things that has come about [from the pandemic].”*

A superintendent in our study shared, *“Our district team created a website for teachers and the website housed different types of professional development for a lot of the different platforms that we were using.”*

Another teacher echoed these sentiments *“we don’t print report cards anymore. [Parents] come in. We sign them up on the parent portal...and I know that’s a small thing. But for a lot of our [parents], especially the grandparents that are raising these children, that was a huge deal, it opened the world up.”*

In districts where there were established norms and high levels of collaboration, teachers relied on each other to decide how best to teach remotely.

A teacher in our study commented, *“[remote learning] changed the way we collaborated”, teachers were more willing to share pedagogical knowledge and digital learning tools. “Once the pandemic hit, and everybody felt like they were just scrambling to kind of keep up. So, everybody was sharing everything, and that sense of collaboration just really exploded. And now it’s kind of a norm. If you, if you have a great idea, a great resource, or a great lesson, you immediately share it out with everybody.”*

4. Pay attention to the increased job demands on teachers in NC rural schools as a result of the abrupt transition to ERT or hybrid learning models due to COVID-19.

Teachers began to exhibit symptoms of moderate to high job burnout (Etchells et al., 2021, Sokal et al., 2020). Rural schools often did not have adequate resources to support teachers’ technological knowledge and little to no emphasis was placed on TPACK.

A superintendent in our study shared that ERT was a factor in teachers’ decision to quit the profession *“I think it was a lot of weight to have to bear. I think there were a lot of people that got discouraged because they weren’t cut out to work in a virtual environment. Our kids weren’t cut out to work in a virtual environment. Our parents weren’t cut out for that, either. I think a lot of them were close to retirement, and that just pushed them a little bit earlier.... I don’t think they enjoyed delivering instruction the way they were delivering instruction... It was like a tidal wave. It just swept a lot of people up.”*

One teacher noted *“we were just kind of on your own of how to set up everything and the technology support only focused on how we use the interfaces, or how to make your [google] classroom more inviting.”*

RECOMMENDATIONS

1. **Provide Targeted Professional Development (PD) on Pedagogical Use of Instructional Technologies:** Offer professional development sessions that focus specifically on the pedagogical integration of instructional technologies.
2. **Allocate Funding for Essential Technological Resources:** Prioritize funding for continued use of essential resources such as hot spots, one-to-one devices, and new digital platforms.
3. **Establish Interdepartmental Professional Learning Communities (PLCs)**
4. **Recognize and Reward Teachers' Technological Growth:** Provide Digital Learning credits (CEUs) for technology skills acquired during the pandemic. This recognition serves as an incentive and validation for their commitment to adapting and learning new instructional technologies to enhance student learning.
5. **Integrate Instructional Technology into Educator Preparation Programs (EPPs):** Embed instructional technology training within Educator Preparation Programs. This integration ensures that future educators are equipped with the necessary skills and knowledge to effectively integrate technology into their teaching methods. (Chaudhuri, P. 2022).

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