

Tech with Intent: A Digital Mentor Guide

Sasha Hightower Herron
Dr. Todd Ullah

Abstract

This research brief addresses a problem of practice in a public school setting that supports the integration of instructional tools into K-12 classrooms, specifically the district's limited technology integration support. To solve this challenge, this brief outlines goals, objectives, and an actionable year long guide for building capacity for digital mentors to consistently support teachers in integrating technology into instruction. The brief provides the guide with a grounding in research that supports high norms of professional learning community practices and the implementation of Technological Pedagogical Content Knowledge (TPACK) to the participants in this work. The research brief frames how the guide addresses role expectations, support structures, resources, instructional intents, and accountability measures for the 2026-2027 school year.

Problem of Practice

This research brief addresses public schools in Missouri that are part of the Verizon Innovative Learning Schools program. This district is demographically diverse and has a multi-layered instructional technology support system—comprising two district-level digital learning coaches, building-level instructional coaches, and building-level digital mentors who work during conference hours. This brief outlines an actionable framework for building capacity and improving practice. Navigating different schedules (full-time coaching versus one to two daily preparation hours) requires a research-based guide or checklist that functions to increase the integration of technology while enhancing instructional conversations in professional learning communities (PLCs).

The problem of practice this brief addresses is that the district has limited technology integration support. The digital mentors are in need of a structured TPACK-based toolkit to consistently support teachers in integrating technology in meaningful ways that enhance instruction, increase student engagement, and improve learning outcomes. This guide is needed to support digital mentors specifically to help lead teachers at their schools to the successful integration of hardware and software needed for the instructional program.

To address this problem of practice, the digital learning coach developed a guide to provide clearer expectations, support structures, and accountability measures for mentors. Previously, mentor support was inconsistent, with some mentors providing only minimal assistance to staff and lacking

accountability for their role. In addition, many mentors appeared to lack the knowledge, confidence, or experience needed to effectively integrate meaningful technology beyond their own content areas. As a result, teachers were not always receiving the level of support necessary to enhance instruction and technology integration. The digital mentor guide was created to establish a more consistent, effective, and accountable framework for supporting educators.

Drawing on DuFour's Professional Learning Community (PLC) framework (2016), establishing a dedicated collaboration space between digital mentors and digital learning coaches is essential for building collective capacity and ensuring consistent technology support for teachers. A structured PLC for digital mentors and digital learning coaches creates opportunities to share best practices, analyze instructional needs, problem-solve challenges, and develop a common vision for meaningful technology integration across all content areas. This collaborative approach increases mentor confidence, strengthens instructional expertise, and promotes accountability for providing high-quality support to teachers. Also, by structuring PLCs around instructions in the guide with resources that can foster high-norm collaborations to maximize investment in 1:1 Apple device deployments, STEM/robotics spaces, Canvas, and adaptive learning platforms (PLTW, i-Ready, Nearpod, Seesaw).

Supporting Research

Research indicates that technology professional development is most impactful when it is job-embedded and collaborative rather than isolated or technical (Darling-Hammond et al., 2017). Establishing a PLC for digital mentors and digital learning coaches creates a collaborative environment for continuous improvement, making the introduction of the TPACK framework the next step for building a common understanding of how technology can be integrated effectively to support teaching and learning. By anchoring technology within the continuous improvement cycles of a PLC, schools can build collective teacher efficacy, ensuring that digital tools directly support rigorous, standards-aligned student learning outcomes (Hattie, 2018; Vangrieken et al., 2015). To address limited integration of technology into the classroom, the use of the TPACK framework fosters PLC collaboration, enhances content knowledge, and provides pedagogical strategies to empower digital mentors to support successful technology integration.

The TPACK framework is used to identify the complex interactions between three primary forms of knowledge required for effective classroom technology integration: content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK) (Mishra & Koehler, 2006). Originally building upon Shulman's (1986) foundational concept of pedagogical content knowledge, the model argues that truly impactful teaching with technology goes beyond treating digital devices as isolated add-ons or operating manuals (Koehler & Mishra, 2009). Instead, effective instruction occurs at the intersection of all three domains, where educators seamlessly synthesize what they are teaching (the standards-based subject matter) with how they are teaching (evidence-based instructional strategies) and the tools they are using (the hardware and digital platforms). By focusing on this integrated "sweet spot," the TPACK framework provides a shared language for digital mentors to interact with teachers to move past passive software

consumption and design learning environments where technology actually drives student-centered inquiry and content mastery to support student understanding of content and teacher practice (Mishra & Koehler, 2006; Koehler & Mishra, 2009).

Goals and Objectives

Goals: Develop a research-based guide that equips digital mentors to effectively use the TPACK framework to promote meaningful technology integration and strengthen their instructional support role within their school buildings.

The digital learning coach will present these goals, objectives, and resources to the digital mentors in August 2026, at the beginning-of-the-year professional development for onboarding and ongoing use.

Objectives: By the completion of this project, a comprehensive research brief will be created that achieves the following:

- Outlines how the research brief ties the guide to high norms of collaboration in a professional learning community and research-based strategies.
- Provides research-based support for the integration of instructional tools into practice.
- Explains the core components of the TPACK framework.
- Provides a task calendar that embeds coaching support and resources for digital mentors.

The Digital Mentor Guide

The Digital Mentor Guide 2026–2027 serves as an onboarding and a yearlong framework for supporting teachers through coaching, collaboration, and intentional technology integration. Information from this brief will provide the foundation for the 2026–27 onboarding presentation to all digital mentors. The guide is formatted as a year-long calendar that includes resources such as a monthly newsletter provided by the district digital learning coach, a building request form, and a services provided log for the digital mentors to track the support needs and feedback of their teachers. Specifically, it provides monthly tasks, quarterly check-ins, and documentation expectations that help digital mentors build staff capacity and sustain support throughout the school year. Quarterly, digital mentors are encouraged to utilize the district’s Digital Learning Roadmap to engage in asynchronous professional learning, develop proficiency with relevant digital platforms, earn certifications, and strengthen job-related technology integration skills.

Key responsibilities include sharing technology tips, maintaining a support log, gathering teacher feedback, hosting help sessions, analyzing student work (Patterns in Student Work Protocol and ATLAS Protocols) and partnering with administrators to address building needs. Mentors will also be responsible for supporting teachers with district platforms and devices, encouraging technology strategies during professional development, and modeling effective classroom technology practices. The digital mentor guide helps to shift technology from an add-on to an active learning engine work is organized by instructional intent.

Instructional Intent	Primary Toolset	Mentor High-Leverage Strategy
Active Learning & Formative Assessment	iPads + Nearpod / Seesaw/ Canvas	Capturing real-time formative data points during Tier 1 core instruction
Differentiated Intervention	i-Ready (Math & Reading)	Analyzing growth trends to build target-driven small-group classroom stations
Applied STEM & Design Thinking	MacBooks + Project Lead the Way (PLTW) / Robotics/STEM	Transitioning educators from technical troubleshooters to facilitators of inquiry in STEM spaces

Table 1

Lastly, as seen in Table 1, mentors are encouraged to use the TPACK framework to support teachers in selecting meaningful digital tools, implementing accessibility and differentiation strategies, increasing student voice and engagement, and sharing successful technology-enhanced lessons with their peers through the submission of artifacts.

Appendix A: Sample Digital Mentor Guide

	Tasks	Artifacts
August/September	☐ Attend Digital Learning Mentor Onboarding ☐ Get familiar w/ TPACK (see Appendix B) ☐ Introduce yourself and your role to your building staff and building tech ☐ Familiarize yourself with the digital tools and hardware used in your building ☐ Complete CANVAS training (only for 6-12 buildings) ☐ Work with the building admin to create a schedule for sharing monthly tech tips via email ☐ Support a new staff member with core platforms ☐ Maintain a Mentor Support Log Suggested Tasks: ☐ Ask the admin team to give you 10-15 minutes to present a tech tool, tip, or strategy at building PD	☐ Share your introduction email/video ☐ Google Form for documentation of interactions ☐ Share your monthly tech tip/newsletter blurb
October/November	☐ Begin collecting student work samples or lessons to highlight for other staff ☐ Send a tech tip or tool tutorial to your building teachers. ☐ Demonstrate a tool that increases student voice or agency ☐ Collect feedback from teachers on what type of digital support they would like ☐ Host at least one drop-in tech help session for staff ☐ Maintain a Mentor Support Log ☐ An accurate support log (who, when, tool, purpose) ☐ Try to get 3-5 touches a month	☐ Sample lesson plans ☐ Student reflection templates ☐ Photos/videos of students engaged in activities ☐ Behavior and engagement data

	☐ Show your efforts to support building ☐ 1st Quarter (October): Attend Digital Mentor Check-in Suggested Tasks: ☐ Establish a small student tech team ☐ Encourage the creation of a STEM Club (especially if your building has a lab)	
December/January	☐ Send a tech tip to your building teachers ☐ Share at least two successful classroom strategies with your staff ☐ Demonstrate an advanced feature on a heavily used digital tool such as Nearpod, Canvas, or Clever ☐ Complete certification or training for a district platform (ex. Seesaw Ambassador) ☐ Maintain a Mentor Support Log ☐ An accurate support log (who, when, tool, purpose) ☐ 2nd Quarter (January): Attend Digital Mentor Check-in Suggested Tasks: ☐ Help one teacher use accessibility or differentiation tools	☐ Sample lesson plans ☐ Student reflection templates ☐ Photos/videos of students engaged in activities ☐ Behavior and engagement data
February/March	☐ Send a tech tip to your building teachers ☐ Ask teachers to share ways they have successfully implemented technology ☐ Host at least one drop-in tech help session for staff ☐ Maintain a Mentor Support Log ☐ An accurate support log (who, when, tool, purpose) ☐ 3rd Quarter (March): Attend Digital Mentor Check-in Suggested Tasks: ☐ Schedule 10-15 minutes to present a tech tool, tip, or strategy at building PD ☐ Present a tool that is not widely used but recommended	☐ Student presentation rubrics ☐ Sample lesson plans ☐ Photos/videos of students engaged in activities or staff in PD ☐ Behavior and engagement data

April/May	☐ Send a tech tip to your building teachers ☐ Nominate a teacher for technology growth or innovation ☐ Share a documented success story with evidence ☐ Compile artifacts, logs, reflections, and impact data ☐ Share it with your building admin, teachers, and Digital Learning Coordinator ☐ Maintain a Mentor Support Log ☐ An accurate support log (who, when, tool, purpose) ☐ 4th Quarter (May): Attend Digital Mentor Check-in Suggested Tasks: ☐ Share at least two successful classroom strategies with the building leadership team.	☐ Student presentation rubrics ☐ Sample lesson plans ☐ Photos/videos of students engaged in activities or staff in PD ☐ Behavior and engagement data
------------------	---	---

Appendix B: TPACK Framework

TPACK (Technological Pedagogical Content Knowledge) is a framework that helps educators integrate technology in ways that enhance teaching and learning.

As educators, we are constantly bombarded with new apps, platforms, and digital tools. It can feel overwhelming, and it often leads to a frustrating question: *“Am I using this tool because it actually helps my students learn or just because it’s high-tech?”*

In your classroom, there are three different types of knowledge overlap:

Content Knowledge (What you teach): Your deep understanding of your subject matter, whether it is fourth-grade fractions, seventh-grade ecosystems, or 10th-grade geometry.

Pedagogical Knowledge (How you teach): Your master [toolbox of teaching strategies](#). This includes how you manage a classroom, structure group work, handle direct instruction, or use formative assessments.

Technological Knowledge (The tools you use): Your understanding of digital tools, from your interactive whiteboard and learning management system (LMS) down to specific educational apps like Canvas, Nearpod, Seesaw, or Minecraft (Digital Learning Roadmap).

Why This Approach Works

- It is **standard-first, tech-last**: You never start a lesson plan by picking an app. You start with the academic standard and your learning objective. The technology is only brought in at the very end to amplify your teaching.
- It **prevents tool obsolescence**: Apps change, merge, and go out of business every year. But good teaching strategies and core standards do not. By focusing on the *purpose* of the tool rather than the tool itself, your lesson plans remain evergreen.
- It **turns consumers into creators**: TPACK shifts students away from passively staring at screens (consuming media) and pushes them toward actively using technology to solve problems, build models, and collaborate (creating knowledge).

The TPACK Check	Operational Question for the K-12 Educator
Content Alignment (CK)	What exact standard or core concept are my students learning in this lesson?
Pedagogical Strategy (PK)	How am I grouping students or structuring the lesson to maximize engagement?
Technological Purpose (TK)	Does this specific tool allow students to learn this content in a way that paper or standard lectures cannot?

TPACK Video Resources: [1](#), [2](#), [3](#)

Example Lesson:

Content: Analyzing character traits

Pedagogy: Collaborative discussion

Technology: Seesaw video reflections

TPACK Outcome: Students record and share evidence-based explanations of character traits.

QUICK WINS

TPACK Reflection Questions

When coaching teachers, ask the following:

Content

- What is the learning target?
- What standards are being addressed?

Pedagogy

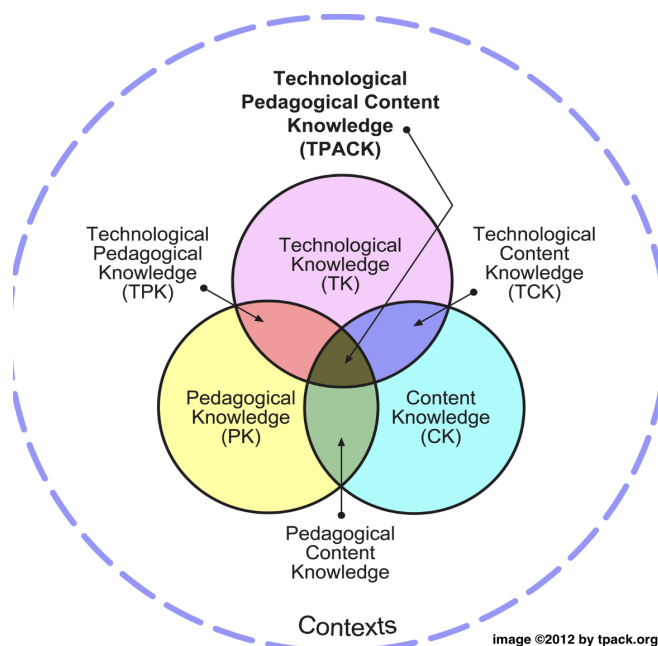
- How will students engage with the content?
- What instructional strategy is being used?

Technology

- How does the technology improve learning?
- Would learning be different without the tool?

Integration

- Does the technology support the learning goal?
- Does it increase engagement, collaboration, creativity, or feedback?



Moving Beyond Technology Use

Technology Use	Meaningful Technology Integration
Students watch a video	Students analyze and discuss content from the video
Students type notes	Students collaborate and provide peer feedback
The teacher presents slides	Students create, investigate, and demonstrate understanding

Remember: The goal is not more technology. The goal is better learning.

TPACK Lesson Checklist

- ✓ Learning target is clear
- ✓ Technology aligns with instructional goals
- ✓ Technology enhances—not replaces—good teaching
- ✓ Students are actively engaged
- ✓ Students create, collaborate, communicate, or think critically
- ✓ Technology supports a deeper understanding of content

One-Sentence TPACK Reminder

Start with the learning goal, choose the instructional strategy, and then select the technology that best supports student learning.

References

DuFour, R., DuFour, R., Eaker, R., Many, T., & Mattos, M. (2016). *Learning by doing: A handbook for professional learning communities at work* (3rd ed.). Solution Tree Press.

Hargreaves, A., & O'Connor, M. T. (2018). *Collaborative professionalism: When teaching together means learning for all*. Corwin Press.

Hattie, J. (2018). *Visible learning: Feedback*. Routledge.

Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70.

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054.
<https://doi.org/10.1111/j.1467-9620.2006.00684.x>

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4–14. <https://doi.org/10.2307/1175860>

Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review*, 15, 17–40. <https://doi.org/10.1016/j.edurev.2015.04.002>



[CC BY-NC-ND 4.0 Deed | Attribution-NonCommercial-NoDerivs 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/)

