Overview

Technology is everywhere—from the computers and laptops that we work on to the smartphones and tablets that we always carry with us—and it has become an integral part of part of daily life. Shifts in the way we work, play, do business, and interact with each other have resulted in a technology-rich landscape that the students of today are entirely familiar and comfortable with. Children use cell phones, tablets, iPods, wireless Internet, social media, and multimedia tools to play, create new content, collaborate with one another, and communicate their ideas with the world.

Teachers and school leaders who embrace the power of technology and create technology-rich learning environments not only experience increased student achievement, attendance, and graduation rates but also increased parental involvement. Technology also offers easy access to professional learning opportunities for staff, and seamless collection and analysis of student and program data. Teachers in technology-rich classrooms and schools use these tools to help all students learn and achieve by personalizing student learning and differentiating instruction to address the needs of struggling students, including students with disabilities. Consider the classroom example below:

Every student in Ms. Brett's fifth-grade class was actively reading about the Civil War. Some used eBooks and highlighting tools to tag information; others accessed tablets, linking to images and primary documents to enrich their learning experience. Some relied on headphones to hear the text read aloud. Accessing and interacting with the information in different ways, depending on the learning needs of each individual student, meant that all the students were actively engaged.

How did Ms. Brett's principal support her efforts to personalize reading instruction? How did Ms. Brett plan her instruction to meet the needs of all students, including struggling learners and students with disabilities? ***Read this Practice Guide to learn more about how to systematically enhance technology implementation throughout the school and integrate technology into classroom instruction.***

Purpose of the Technology Implementation Practice Guide

Students should not have to "power down" when they enter a school building. As you know, the key to effectively implementing technology in your district or school is ***systematic planning***. To facilitate this planning process, this Practice Guide presents a ***roadmap*** for district- and school-wide technology implementation, as well as best practices for integrating technology into instruction in the classroom. In the Practice Guide, you can find the following:

- **A step-by-step process or "roadmap" for technology Implementation**, which outlines how to plan, implement, and sustain the use of technology within your school to advance teaching and learning.
- **Information on hot topics** like Bring Your Own Device (BYOD) and one-to-one initiatives, including support on ways to implement in your school or district.
- **Best practice recommendations** to support technology integration throughout classroom instruction in order to personalize student learning and meet the needs of struggling students.
- **Case stories** that detail the experiences of other districts and schools as they implemented and expanded technology use.
- **Resources** to guide your systemic planning process and develop professional learning opportunities within the school.

- **Suggestions on how to use the PowerUp WHAT WORKS website** to advance professional learning opportunities in your school and district, and to support your process of planning, designing, and implementing technology.

Who Should Use This Guide?

Whether you are a district or school leader wanting to increase the use of technology in your school(s), a teacher aiming to transform your instruction and use the power of technology to meet student learning standards, a "coach" or professional development coordinator working with staff to enhance instructional practices, a university professor preparing the teachers of tomorrow, or a technical assistance provider working with a district or school on developing strategic action plans, this Practice Guide can help you realize your goals. Used in conjunction with the PowerUp website, the Practice Guide supports your efforts to:

- Facilitate and promote school-wide technology implementation
- Enhance inclusive instruction supported by technology
- Prepare tomorrow's teachers and leaders

How to Use the Practice Guide

The Practice Guide is supported by Practice Guide Support modules that are designed to facilitate the work of the leadership team as it enhances technology and its use in the school building and throughout instruction. These modules include facilitator guides and PowerPoint slides for team leaders to guide team meetings, resources and materials to support your planning, and a roadmap for setting and accomplishing your goals. **Click here** to access the Practice Guide Support Modules.

The Practice Guide Supports

- District administrators
- Principals
- Technology coordinators
- Professional development coordinators
- Special education coordinators/ teachers
- Coaches
- Curriculum specialists
- University faculty
- Lead teachers
- TA providers

What Is Educational Technology?

For the purposes of the Practice Guide, we define educational technology as those electronic or digital tools and applications that can support the use of evidence-based instructional strategies that facilitate K–12 instruction and enhance academic achievement. Educational tools and devices can include (but are not limited to) software programs and apps, hardware devices (e.g., desktop and laptop computers, tablets, interactive whiteboards), and Internet applications (e.g., wikis and blogs).

For more information on assistive technology, visit the TechMatrix.

www.techmatrix.org

So what is assistive technology?

Assistive technology (AT) refers specifically to the devices, hardware, software programs, peripherals, and systems used by people with disabilities to enable them to perform tasks that they might not be able to complete on their own. AT covers a wide range of devices and programs, including computers, specially designed keyboards, text-to-speech programs, and so on. Although AT is targeted to assist students with disabilities, advances in AT are often generalized and applied to support any learner in the classroom. For example, text-to-speech programs have

proven to be an effective method to support reading instruction. Go to http://www.assistiveware.com/user-videos to see how the power of technology can transform a student's life.

The Role of Research

The Practice Guide incorporates best practice recommendations and solutions to common roadblocks, all of which are grounded in the research and literature on technology implementation and implementation science to foster effective school change. Our wide-ranging literature review included journal articles on findings from research studies, national reports by key organizations, dissertations, and other sources that showcase the practices that districts, schools, and teachers across the nation have found to be effective. In addition, we have documented experiences from our field-test sites and highlighted selected districts and schools from across the country that have a history of successful, systemic implementation of technology.

Overview of Key Recommendations in the PowerUp Roadmap

The six best practice recommendations are the core tasks of your implementation plan. These will guide you through the ongoing, iterative process of planning, implementing, and sustaining technology use to enhance student learning. As you progress through these tasks, we hope that you will revisit your work in each core component, reflect on your implementation efforts, and review and refine your plans to best meet the needs in your context.

Use the PowerUp website to:

- Plan professional learning events.
- Find resources and ideas on technology trends and ways to use technology in the classroom.
- Strengthen instructional practice on how to differentiate instruction in ELA and math.

www.powerupwhatworks.org

- **RECOMMENDATION 1: Work as a team**

  Effective district- and/or school-wide implementation of technology begins with strong leadership and collaborative team relationships.

- **RECOMMENDATION 2: Enhance the school vision and set concrete action goals**

  Schools that drive the implementation of technology through vision and goal setting are more likely to be successful than those where implementation is driven by the sudden availability of funds.

- **RECOMMENDATION 3: Gather data to drive decision making**

  Technology decisions guided by data-driven decision making advance teaching and learning in the school building.

- **RECOMMENDATION 4: Define your technology budget**

  Consider alternatives to funding, and plan not only for initial costs but also for long-term maintenance and replacement costs to facilitate sustainability.

- **RECOMMENDATION 5: Plan professional learning opportunities**

  It is critical to build the capacity of school staff to use and integrate technology by fostering a school culture that supports continuous learning.

- **RECOMMENDATION 6: Provide access to technology and support**

  Technology use and implementation throughout the district or school building requires continuous support and a systemic process through which teachers can access assistance when experiencing technical difficulties with the technology.