
Choosing and Implementing Technology Wisely

National High School Center

The effective integration and implementation of educational technology is critical to ensure that these tools can make a difference in the academic achievement of all students. These ever-changing technologies include computers, mobile/handheld devices, interactive white boards, social media and multimedia tools, simulations, and games. Research indicates that technology must be used in ways that align with curricular and teacher goals, and offer students opportunities to use these tools in their learning. The findings from a National Research Council report underscored this point, “In general, technology-based tools can enhance student performance when they are integrated into the curriculum and used in accordance with knowledge about learning. But the mere existence of these tools in the classroom provides no guarantee that student learning will improve; they have to be part of a coherent education approach” (Bransford, Brown, & Cocking, 2000). As technology tools continue to evolve, their role in teaching and learning can follow various paths, including computer-based assignments and plans; online/distance learning courses; assessment; research-based educational programs (software and internet-based); and a growing number of online and stand-alone resources and tools.

Growing evidence supports the use of educational and assistive technologies (AT) to enhance teaching and learning for students with disabilities. Over the past ten years, there has been a significant growth in AT tools to provide students with assistance in acquiring reading, writing, and mathematics skills. These AT tools enable students with disabilities to perform tasks that they might not otherwise be able to do on their own. For example, text to speech supports students with print-related disabilities, alternative input devices support computer use for students with physical disabilities, and augmentative communication devices provide support for students with communication disorders.

Research and needs assessments conducted by the National Center for Technology Innovation (NCTI) and the Center for Implementing Technology in Education (CITEd) have led to the creation of two decision-support tools, *The Consumer Guides* and the *EdTech Locator*. These tools help school administrators make informed decisions relating to educational and assistive technology. The *Guides* suggest questions to ask technology vendors and issues to consider in the following five areas:

- Alignment of standards and curriculum goals;
- Implementation of technologies;
- Scientifically-based research;
- Funding for purchasing educational technology; and
- Federal legislative mandates such as Individuals with Disabilities Education Act (IDEA) and the Elementary and Secondary Education Act (ESEA).

The *EdTech Locator* focuses on the work of a technology implementation team in a district or school, outlining the responsibilities for administrators, technology coordinators, professional development coordinators, and teachers. The action principles below are drawn from both resources.

Action Principles

For District

1. Develop guidance for schools on aligning technology products and classroom curriculum.
2. Create a school or district-wide technology implementation team made up of administrators, technology coordinators, teachers, and professional development coordinators to identify key areas of focus for implementation efforts.
3. Work with district or regional educational technology resource centers to establish a list of technology products that address state standards and meet the needs of all students, both with and without disabilities.

4. Collaborate with educational technology resource centers to develop training programs to help district teachers use AT and integrate them into existing curriculum.
5. Consider participating in technology studies conducted by research organizations and local academic institutions.
6. Collaborate with other districts to reduce unnecessary spending and to identify effective technology interventions.
7. Identify grants from state agencies and foundations to purchase needed technologies.
8. Establish public-private partnerships in communities with businesses to build a sustainable technology infrastructure.

For School

1. Ensure that teachers are comfortable using technology for their own productivity and professional learning.
2. Work with professional development and instructional media leaders to integrate technology into instructional initiatives.
3. Create opportunities for teachers to work together to practice with new technologies before using them instructionally.
4. Consider low- or mid-tech devices that can meet the needs of students with lower purchase and maintenance costs.
5. Take advantage of trial periods or demonstration copies of software to ensure that technologies meet the needs of students.
6. Apply for grants from the local school district, state, business partners, and foundations to purchase technologies.

References and Resources

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