ARIZONA DEPARTMENT OF EDUCATION, TECHNOLOGY TASK FORCE

Digital Teaching and Learning Guide

Table of Contents

Click to visit the **Instructional Design Indicator** you'd like to explore.

Social & Emotional Learning
Pages 3-5

Instructional Time
Pages 6-7

Connections to Families & Students
Pages 8-10

Student Engagement Aligned to Standards
Pages 11-12

Equity, Choice & Flexibility
Pages 13-14

Feedback on Student Work
Pages 15-17

Collaboration Among Students
Pages 18-19

Appendix
Pages 20-25

What is our vision?

This Digital Teaching and Learning Guide is designed to bring this vision to life in Arizona classrooms - equitable access and opportunity for learning for every student in our state.

What is Digital Teaching and Learning?

Digital Teaching and Learning is defined in this guide as experiences designed by teachers for students using digital tools and contemporary pedagogical practices. As technology use for educational purposes has increased, so has the need for refinement of best practices.

Educators design learning experiences intentionally, based on student needs. These experiences include flexible and adaptable opportunities for learner choice and voice to meet the students' academic and social/emotional needs.

Social & Emotional Learning

"Social and emotional learning (SEL) enhances students' capacity to integrate skills, attitudes and behaviors to deal effectively and ethically with daily tasks and challenges."

- Arizona Department of Education, Arizona Social and Emotional Learning Competencies

Explore Social & Emotional Learning

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Social and emotional learning (SEL) competencies positively impact student outcomes.	**Self-awareness:** The ability to accurately recognize one's own emotions, thoughts, and values and how they influence behavior. The ability to accurately assess one's strengths and limitations, with a well-grounded sense of confidence, optimism, and a "growth mindset."	ISTE Standards for Educators 6d: *Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.*	• **Daily Check Ins:** Google Form, SeeSaw, Office 365, Teams • **Journal Their Feelings with a Free Write:** Seesaw, Word document, Google Doc/Slides, Self Kidblog, Book Creator, Write About This, Paper by Fifty Three and many more • **Write Notes of Self-Efficacy and/or Optimism:** Jamboard, PicCollage, Word Doc, Google Doc • **Presentation on Their Family/Self Identity/Cultural Heritage:** Google Slides, Prezi, any other presentation software
	Self-management: The ability to successfully regulate one's emotions, thoughts, and behaviors in different situations — effectively managing stress, controlling impulses, and motivating oneself. The ability to set and work toward personal and academic goals.	ISTE Standards for Educators 6a: *Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.*	• **Set and maintain goals:** Google Calendar, Google Tasks, Word Doc, Trello • **Make behavior charts for motivation:** Google Sheets, Excel, Word Doc, kidrewards.org • **Create their own calming choice board/video playlist:** Google Slides, PowerPoint, Word Doc, Sway, YouTube playlist • **Create mood boards with life goals:** PicCollage, Google Slides, PowerPoint, Jamboard, Word Doc • **Share strategies with other students for solving problems or how to manage with frustration and self-control:** Jamboard, Google Slides, Google Classroom, Word Doc, Canva
	Social awareness: The ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures. The ability to understand social and ethical norms for behavior and to recognize family, school, and community resources and supports.	ISTE Standards for Educators 3a: *Create experiences for learners to make positive, socially responsible contributions and exhibit empathetic behavior online that build relationships and community.*	• **Read e-books that highlight empathy and diversity:** Epic!, local library website, search for read alouds on YouTube • **Create an e-listening circle:** Padlet, PicCollage, Flipgrid, video conferencing platform (for synchronous) • **Create a classroom service project:** Jamboard, Google Docs, Word doc, Sway, Teams • **View videos on empathy and have a class discussion:** YouTube, Edutopia, TeacherTube • **Mindfulness activities:** YouTube, GoNoodle, TeacherTube

Continued

Pedagogical Knowledge

Social and emotional learning (SEL) competencies positively impact student outcomes.

Content Knowledge

Relationship skills: The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. The ability to communicate clearly, listen well, cooperate with others, resist inappropriate social pressure, negotiate conflict constructively, and seek and offer help when needed.

Responsible decision-making: The ability to make constructive choices about personal behavior and social interactions based on ethical standards, safety concerns, and social norms. The realistic evaluation of consequences of various actions, and a consideration of the well-being of oneself and others.

Technological Knowledge

ISTE Standards for Educators 3a: *Create experiences for learners to make positive, socially responsible contributions and exhibit empathetic behavior online that build relationships and community.*

ISTE Standards for Educators 4c: *Use collaborative tools to expand students' authentic, real-world learning experiences by engaging virtually with experts, teams and students, locally and globally.*

Resources

- **Shared story creation:** Google Docs, Book Creator App, Seesaw, Word Doc, Sway, etc.
- **Cooperative presentation development:** Google Slides, PowerPoint, any other slideshow software

- **Propose a problem (or use a problem from history) and ask students to solve it together using the POOCH PROCESS:** Jamboard, Google Docs, Word Doc, any word processing app/software
- **View videos on making decisions:** YouTube, Edutopia, TeacherTube
- **Write a letter to someone in the community:** Google Docs, Word doc, any word processing app/software
- **Conduct research on successful historical figures who made decisions:** Google, word processing software (Docs or Word) and presentation software (PowerPoint, Slides, etc.)

Instructional Time

The amount of time students are expected to learn and complete academic work in a remote setting should differ from instruction delivered in a physical classroom. You should not assume students will be spending the traditional hours or the same amount of time on learning as when they are in the classroom.*

Explore Instructional Time

*From NC Instructional Design Principles for Remote Learning

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Effective pacing and sequencing of a lesson is important to lesson design.	After task analysis of the lesson, manage content so that natural pauses can take place during learning.	ISTE Standards for Educators 6b: *Manage the use of technology and student learning strategies in digital platforms, virtual environments, hands-on makerspaces or in the field.*	• **Flow of Lesson:** Google Slides, Keynote, or Microsoft PowerPoint; EdPuzzle; Smart Notebook • **Classroom strategies:** LanSchool (computer lab management software) • **Makerspace:** Makey Makey, Arduino, Raspberry Pi, Phidgets, Lego Makerspace
Knowledge of the steps for problem-solving and design thinking, and computational thinking concepts.	Design and engineering principles.	ISTE Standards for Educators 6c: *Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.*	• **Use Software for Coding:** FlowLab and Code.org • **Design Process:** Understanding SDLC (System Development Life Cycle); • **Create a Genius Hour:** Provide opportunities for students to learn about whatever they are interested in learning
Creating environments where students are allowed voice and choice and encouraged to communicate and collaborate.	Knowledge of strategies related to promoting ways of communication and self-directed learning.	ISTE Standards for Educators 6d: *Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.*	• **Student-led open house night:** Provide opportunities for students to present to the community or other students so that they can receive feedback electronically or connect with guest speakers from industry

Connections to Families & Students

Consistent and predictable communication between teachers and families includes daily expectations and in each subject which provides a critical connection to the teacher and school.

Explore Connections to Families & Students

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Parental Involvement is a key indicator of student success.	• Learning about the cultures of families • Encouraging families and educating parents about the long-lasting positive effects of parental involvement	ISTE Standards for Educators 4d: *Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.*	• **Parent Survey:** Writing effective questions, surveys - Google Forms, Microsoft Forms, Sheets, SurveyMonkey, Mentimeter, Poll Everywhere and other survey tools; Remind • **Cultural Awareness:** Celebrate diversity and engage students in the study of different cultures with interactive activities - WebQuests, Cyberhunts, Virtual Field Trips, online museums, learning different languages (Translator, Rosetta Stone, DuoLingo) • **Student of the Week:** Students share about their culture through digital presentation - Google Slides, Microsoft PowerPoint, Keynote, Flipgrid, YouTube Video, Google Drawing, SeeSaw
	Designing learning experiences to improve collaboration and communication with parents.	ISTE Standards for Educators 4c: *Use collaborative tools to expand students' authentic, real-world learning experiences by engaging virtually with experts, teams and students, locally and globally.* ISTE Standards for Educators 4d: *Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.* ISTE Standards for Educators 6d: *Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.*	• **Virtual Parent Night:** Zoom, WebEx, Google Meet, Microsoft Teams, Live Stream • **Digital Family Workshop:** Activity requiring parents & students to work together; **MACH ONE TO-GO!** (search for "Mach1" to find this public library program) with STEM kits, read a book together and post a review - Amazon, Blog, Google Classroom • **Guest Speakers:** Ask a family member to share history, culture - Zoom, WebEx, Google Meet, Microsoft Teams • **Sign Up Software:** Calendly, Sign-Up Genius, Doodle

Continued

Pedagogical Knowledge

Student expectations need to be communicated clearly to parents.

Content Knowledge

Multiple methods of communication with families.

Technological Knowledge

ISTE Standards for Educators 2a:
Shape, advance and accelerate a shared vision for empowered learning with technology with education stakeholders.

Resources

- **Class Website:** Teachers and students communicate - Google Sites, Weebly, Wix
- **Student Grades, Assignments:** Google Classroom (enable Guardian notifications), Infinite Campus, PowerSchool, Canvas, Synergy
- **Class Blog:** Teachers and students write about learning - Blogger, BlogSpot, KidBlog, Google Docs, Office 365, Pages
- **Parent/Teacher Communication:** SeeSaw, Text, Email, Phone, WhatsApp, Remind, ClassDojo
- **Virtual Parent Conferences:** Google Meet, WebEx, Zoom, Microsoft Teams
- **Class Newsletter:** Email, Smore, Google Slides, Google Site, Google Doc, Publisher, Pages

Student Engagement Aligned to Standards

It is critical to explore and apply instructional design principles to create innovative authentic learner-driven opportunities that engage students while aligning to standards. As with any setting or environment learner expectations and learning targets would remain consistent, and be flexible to accommodate factors outside the classroom walls.

Explore Student Engagement Aligned to Standards

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Implement evidence-based pedagogy to facilitate meaningful experiences that are aligned to standards and produce empowered learners.	• Content Knowledge of specific area (e.g. science, reading, math, etc.) • Apply area standards to learning opportunities • Conduct learner-centered needs assessment • Connect content-specific standards with technology tool affordances	ISTE Standards for Educators 5b: *Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.*	• **Standards Alignment:** ISTE Standards documents, Arizona State Standards • **Instructional design frameworks:** e.g. ADDIE-Analysis, Design, Development, Implementation, Evaluation
Provide flexible options for class participation, pacing, and schedules.	• Pacing • Differentiate instruction • Target instruction • Asynchronous and synchronous engagement techniques	ISTE Standards for Educators 5a: *Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.*	• **Students use tools to demonstrate their learning:** Docs, Slides, Forms, Sites, Word, PowerPoint, Sway, Keynote, Pages, Numbers • **Flipped Instruction:** Zoom recordings, Zoom, WebEx, Teams, Google Meet, etc. • **Visual Learning:** Graphic Organizers, storyboarding tools
Collaborate with others to design engaging learning opportunities utilizing a menu of digital tools and platforms.	• Team management • Instructional design foundations	ISTE Standards for Educators 5c: *Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.*	• **Interactive Tools:** Playlists, Hyperdocs, Bitmoji Classroom, Choice Board • **Learning Management Systems:** Canvas, Schoology, Blackboard, Google Classroom

Equity, Choice & Flexibility

Educators need to provide equitable access to educational technology, digital content and learning opportunities to meet the diverse needs of all students.

Explore Equity, Choice & Flexibility

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Provide options for students to| demonstrate learning in multiple ways.	There are different ways students can demonstrate their learning.	ISTE Standards for Educators 7a: *Provide alternative ways for students to demonstrate competency and reflect on their learning using technology.*	• **Menu Choice Boards:** Google Slide Decks, PowerPoint, Keynote, websites, video, graphics, or audio • **ePortfolios** • **Competency Based Tasks:** project/problem-based learning
Leverage asynchronous practices, yet include synchronous components when equity-related issues do not allow.	Students accomplish learning tasks synchronously or asynchronously.	ISTE Standards for Educators 5c: *Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.*	• **Blended Learning Resources** • **Online Learning Resources** • **Online Platforms:** Canvas, Google Classroom, Blackboard, Schoology, Canvas, Teams
Differentiate content to meet students needs.	There are multiple ways to differentiate the curriculum to meet student needs.	ISTE Standards for Educators 5a: *Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.*	• **Assistive Technology:** **VISIT WEBSITE** • **Accommodation for learner differences** • **Multi-modal Content Delivery:** Pictures, videos, audio, kinesthetic options, etc. • **Desmos:** math; electronic graphing calculator • **Menu Choice Boards:** Google slides, Google documents, Keynote, Sway, Power

Feedback On Student Work

Providing regular and timely feedback through a variety of means plays an important role in student motivation and digital learning.

Explore Feedback on Student Work

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Formative and summative assessments are essential for student growth and learning.	Educators design effective formative and summative assessments.	ISTE Standards for Educators 7b: *Use technology to design and implement a variety of formative and summative assessments that accommodate learner needs, provide timely feedback to students and inform instruction.*	• **Review Games:** Kahoot, Quizizz, Socrative, Quizlet Live • **Check for Understanding:** Google Form, Padlet, Survey Monkey, Video Responses, Flipgrid, NearPod, PearDeck • **Formative Assessments:** School District Assessment Programs (Galileo, SchoolCity, PowerSchool), Quizlet, EdPuzzle, Mentimeter
	Educators conduct formative assessments regularly to evaluate student understanding.	ISTE Standards for Educators 7a: *Provide alternative ways for students to demonstrate competency and reflect on their learning using technology.*	• **Projects:** Authentic assessments, podcasts, presentations • **Portfolios:** Google Sites, Google Slides, Google Documents, One Note, Keynote, Online tools such as online bulletin boards • **Online quizzes:** Google Quiz, Quizziz • **Reflection Tools:** Online tools like Flipgrid, Jamboard, Padlet, Google Apps • **Personalized Learning Methods:** Playlists, Hyperdocs
Timely and specific feedback to students is essential for their growth.	Students require clarity on how the information they are receiving will help them progress toward their final goal.	ISTE Standards for Educators 7c: *Use assessment data to guide progress and communicate with students, parents and education stakeholders to build student self-direction.*	• **Conferencing Tools:** Zoom, Google Meet, Shared Google Documents, Microsoft Teams, Webex • **School District Grading Platform Apps:** Infinite Campus, PowerSchool, Schoology, Canvas, Google Classroom Guardian Summaries • **Websites:** Google Sites, Wix, Weebly • **Online Quizzing Tools Provide Immediate Feedback:** Google Forms/Quizzes which provides feedback on a spreadsheet • **Curation Tools:** Wakelet

Continued

Pedagogical Knowledge

Students do better when they feel in control of their own learning.

Content Knowledge

Goal-setting with students helps them take ownership of their learning.

Technological Knowledge

ISTE Standards for Educators 6b: *Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.*

Resources

- **Online Collaboration tools:** Google Documents, Microsoft Teams, Padlet, Jamboard, MiroBoard, Prezi
- **Online Project Trackers:** Padlet Timeline, Miro, Google Keep, Spreadsheets, **TRELLO**, **FLOW**

Collaboration Among Students

Students need social interaction, and collaborating with one another is an effective strategy for learning that also supports the whole child. The key is trying to ensure that students are collaborating and connecting with each other multiple times each week.

Explore Collaboration Among Students

Pedagogical Knowledge	Content Knowledge	Technological Knowledge	Resources
Providing structures where students can collaborate on assignments.	Identify and provide resources to students so they can connect with one another.	ISTE Standards for Educators 4a: *Dedicate planning time to collaborate with colleagues to create authentic learning experiences that leverage technology.*	• **Planning Tools:** online planning tools (Monday, Trello), G-Suite, Microsoft 365, discussion boards, Padlet, breakout rooms)
Building relationships with students supports learning.	There are multiple resources to strengthen relationships with students.	ISTE Standards for Educators 4b: *Collaborate and co-learn with students to discover and use new digital resources and diagnose and troubleshoot technology issues.*	• **Example:** Using a new piece of equipment such as a 3-D printer or a different software program, where teacher and students learn the use together (co-learn)
Utilizing authentic, real-world resources provides a dynamic learning environment.	Implementing real-world, collaborative experiences for students increases authentic learning.	ISTE Standards for Educators 4c: *Use collaborative tools to expand students' authentic, real-world learning experiences by engaging virtually with experts, teams and students, locally and globally.*	• **Digital Student Collaboration:** Slack, Discord, Marcopolo, GitHub, Padlet

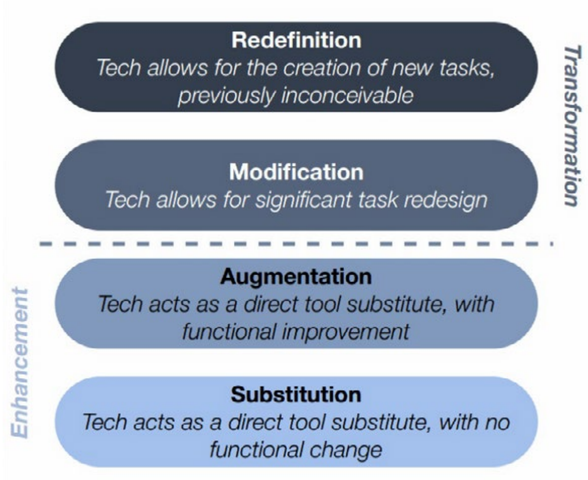
Appendix A

Term	Definition
ADDIE WEBSITE →	The ADDIE model is a process used by instructional designers and training developers. The five phases—Analysis, Design, Development, Implementation, and Evaluation—represent a dynamic, flexible guideline for building effective training and performance support tools.
Flipped Instruction FLIPPED LEARNING NETWORK WEBSITE →	Flipped learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides the students as they apply concepts and engage creatively in the subject matter.
ISTE WEBSITE →	International Society for Technology in Education
Instructional Principles for Remote Teaching & Learning WEBSITE →	North Carolina Department of Public Instruction and NC State Board of Education's Website
SAMR WEBSITE →	The SAMR Model (Substitution, Augmentation, Modification, Redefinition) was created by Ruben R. Puentedura, Ph.D. to create a way to provide good metrics for effective technological design implementation and evaluation options for educators.
TIM MATRIX → ARIZONA TIM WEBSITE →	The Technology Integration Matrix (TIM) provides a framework for describing and targeting the use of technology to enhance learning.
Pedagogical Knowledge	How students learn. What instructional strategies are needed, how do your students learn best and what instructional strategies meet the needs of the students and the learning.
Content Knowledge	Teachers knowledge about the subject matter to be learned or taught.
Technological Knowledge	Knowledge about certain ways of thinking about, and working with technology tools and resources (Koehler and Mishra 2009).

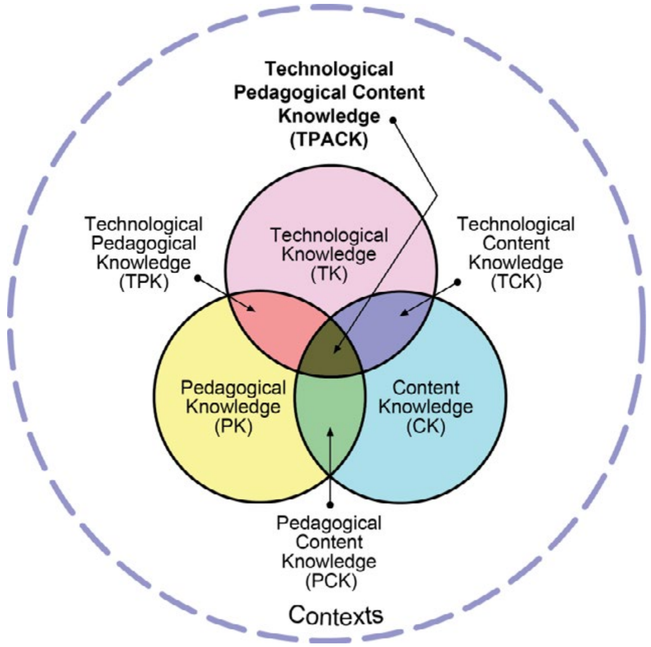
Appendix B

Philosophy: SAMR, TPACK and TIM

Based upon our brainstorming, if we look at technology frameworks, SAMR, TPACK, TIM are three leading ones.



SAMR: A framework that categorizes four different degrees of classroom technology integration.



TPACK: A framework that identifies three types of knowledge instructors need to combine for successful edtech integration.

Continued

Appendix B

Philosophy: SAMR, TPACK and TIM

Based upon our brainstorming, if we look at technology frameworks, SAMR, TPACK, TIM are three leading ones.

TIM:
A framework for describing and targeting the use of technology to enhance learning.
Used with permission from FCIT.

WEBSITE →

LEVELS OF TECHNOLOGY INTEGRATION → / CHARACTERISTICS OF THE LEARNING ENVIRONMENT ↓	ENTRY LEVEL	ADOPTION LEVEL	ADAPTATION LEVEL	INFUSION LEVEL	TRANSFORMATION LEVEL
	The teacher begins to use technology tools to deliver curriculum content to students.	The teacher directs students in the conventional and procedural use of technology tools.	The teacher facilitates the students' exploration and independent use of technology tools.	The teacher provides the learning context and the students choose the technology tools.	The teacher encourages the innovative use of technology tools to facilitate higher-order learning activities that may not be possible without the use of technology.
ACTIVE LEARNING Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.	**Active Entry** Information passively received	**Active Adoption** Conventional, procedural use of tools	**Active Adaptation** Conventional independent use of tools; some student choice and exploration	**Active Infusion** Choice of tools and regular, self-directed use	**Active Transformation** Extensive and unconventional use of tools
COLLABORATIVE LEARNING Students use technology tools to collaborate with others rather than working individually at all times.	**Collaborative Entry** Individual student use of technology tools	**Collaborative Adoption** Collaborative use of tools in conventional ways	**Collaborative Adaptation** Collaborative use of tools; some student choice and exploration	**Collaborative Infusion** Choice of tools and regular use for collaboration	**Collaborative Transformation** Collaboration with peers, outside experts, and others in ways that may not be possible without technology
CONSTRUCTIVE LEARNING Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.	**Constructive Entry** Information delivered to students	**Constructive Adoption** Guided, conventional use for building knowledge	**Constructive Adaptation** Independent use for building knowledge; some student choice and exploration	**Constructive Infusion** Choice and regular use for building knowledge	**Constructive Transformation** Extensive and unconventional use of technology tools to build knowledge
AUTHENTIC LEARNING Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.	**Authentic Entry** Technology use unrelated to the world outside of the instructional setting	**Authentic Adoption** Guided use in activities with some meaningful context	**Authentic Adaptation** Independent use in activities connected to students' lives; some student choice and exploration	**Authentic Infusion** Choice of tools and regular use in meaningful activities	**Authentic Transformation** Innovative use for higher-order learning activities connected to the world beyond the instructional setting
GOAL-DIRECTED LEARNING Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.	**Goal-Directed Entry** Directions given; step-by-step task monitoring	**Goal-Directed Adoption** Conventional and procedural use of tools to plan or monitor	**Goal-Directed Adaptation** Purposeful use of tools to plan and monitor; some student choice and exploration	**Goal-Directed Infusion** Flexible and seamless use of tools to plan and monitor	**Goal-Directed Transformation** Extensive and higher-order use of tools to plan and monitor

Appendix C

Indicators in this Digital Teaching and Learning Guide were inspired by the FRIDAY INSTITUTE FOR EDUCATIONAL INNOVATION as reflected in the graphic above.

Additional Info

Committee Members

Amber Akapnitis, M. Ed.
Assistant Principal at the Phoenix Day School for the Deaf

Michelle Burke,
Software & App Design Instructor, Lake Havasu Unified School District

Jill Felty, M.A.
Technology Integration Facilitator, Paradise Valley Unified School District

Janice Mak, Ph.D.
Arizona State Board of Education

Karen Mensing, M.Ed.
Technology Integration Facilitator, Paradise Valley Unified School District

Daisy Murillo
Student, Western Governors University

Brian Nelson, Ed.D.
Professor, Mary Lou Fulton Teachers College, Arizona State University

Nancy Pratt, Ed.D.
AzTEA President-Elect, Director of Instruction, Buckeye Elementary School District

Nan Williams, Ed.D
AzTEA Executive Director

Vision

Arizona is committed to leveraging the power of technology to rethink education and approach student learning in innovative ways. We believe in using technology-enhanced learning to improve equity and opportunity for all students. Our collective aim is to build on Arizona's great strides in integrating education technology toward even greater gains for all learners across our diverse state. We envision anytime, anywhere learning that prepares our students to be creative, empathetic, knowledgeable, and ethical participants in a digital, connected world. We must prepare our future workforce for jobs that do not yet exist, equipping them to meet the demands of a society in which digital literacy and technology are required to both use and create knowledge.

Our schools must provide students with the opportunities and tools that they need to thrive in a global economy. Our teachers are architects of learning experiences. When equipped with the knowledge, skills, and pedagogy to integrate technology, teachers can transform learning and empower students. Carefully designed technology-supported learning experiences allow students to explore challenging concepts, interact with real world experts, and collaborate to solve real world problems. Further, technology- powered learning offers opportunities for teachers to provide more active, self-directed experiences personalized to student interests.

This Digital Teaching and Learning Guide is designed to bring this vision to life in Arizona classrooms - equitable access and opportunity for learning for every student in our state.

Continued

Additional Info

About This Document

The Arizona Digital Teaching and Learning Teacher's Guide is based on the work of The Friday Institute for Educational Innovation and the North Carolina Department of Public Instruction, who collaborated to create the **INSTRUCTIONAL PRINCIPLES FOR REMOTE TEACHING AND LEARNING**. These instructional design principles are: Instructional Time; Connection to Families and Students; Student Engagement Aligned to Standards; Equity, Choice and Flexibility; Feedback on Student Work; Collaboration Among Students; and Social and Emotional Learning. These foundational principles are at the core of quality digital teaching and learning and set the groundwork for this guide.

The goal of this document is to assist educators in building their capacity to offer quality digital instruction to their students. In this document, each of the core principles listed above is described using a frame of Content Knowledge, Pedagogical Knowledge, Technological Knowledge, and Resources. These concepts are adapted from the TPACK model (Koehler & Mishra, 2009).TPACK is a technology integration framework that identifies three types of knowledge instructors need to combine for successful edtech integration. Research has shown that when teachers consider each of those types of knowledge in their practice with educational technology creates optimal educational environments. This document also outlines action steps and ideas for educators as well as principals, coaches, counselors, social workers, library media specialists and others who support educators and staff in their transition to digital teaching and learning.