

KEY COMPONENTS OF DIGITAL LEARNING:

A Starting Point for Design, Dialogue and Implementation

Version 1.0



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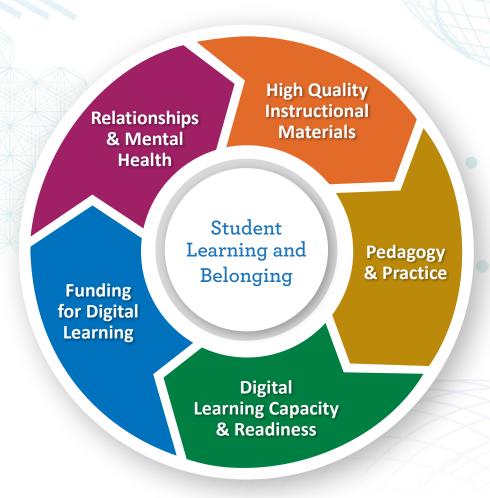
INTRODUCTION

Education has experienced a historic disruption, inspiring new patterns of engagement and purposeful learning through technology. It has also forced deeper examination of what is most important in teaching and learning and has generated new questions, reflection, and innovation. *Key Components of Digital Learning: A Starting Place for Design, Dialogue and Implementation* is a resource to support districts and schools in their effort to redesign, revise, and reimagine learning.

As districts design for in-person and on-line instruction with new schema and context for digital resources, tools, and strategies, it is clear that there is not one singular pathway or simple way forward. This resource sets forward foundational practices that will apply to districts implementing new online programs, designing for blended learning, and/or leading for reimagination of teaching and learning. Universal in its design and audience, the ultimate aim of this resource is to reduce existing inequity and increase learning and belonging.

An equity-informed, anti-racist, and anti-oppressive lens weaves through each of the Key Components. With this focus, digital learning and educational technology have the power to disrupt systems of oppression and marginalization, to engage and empower students and families, and affirm students' racial, cultural and linguistic identities. The widespread increase in the use of technology that occurred during the pandemic now provides an opportunity to carry forward the best of what we learned, to leverage it to address inequities in schools across Oregon, and to redefine access. With an equity focus and mindset, digital learning can help reduce inequities between students. It is equally important to acknowledge that in the absence of this intention, digital learning can also perpetuate and exacerbate existing inequities and make schooling more difficult for those who are already marginalized within the system.

Key Components of Digital Learning



Inequalities based on race, social class, gender, language, sexual orientation nationality, religion, ability and other protected classes can worsen inequalities faced by students, especially with regards to resources, opportunities, and power within the education system. These inequalities can be further exacerbated by the move to digital learning. For this reason, it is essential to acknowledge structural inequalities and to design digital learning to honor students' sociocultural identity and lived experience and increase access and voice. It is equally important to attend to resource distribution and connectivity. With a focus on equity, digital learning can help schools devise ways to disrupt inequities and create a more just educational system.

Guiding Questions for Equity Through Digital Learning

The Digital Promise's <u>Digital Learning Handbook</u> provides recommendations and actions to ensure digital learning is contributing to disrupting inequitable systems in digital learning spaces. Some key questions for educators to research and consider are:

- How are we paying attention to factors within students' lives that could limit access or time availability?
- How are we providing affirmation for the racial, cultural, and linguistic identities of students?
- What are the inequities inherent in digital learning and how are we providing students with opportunities to study and challenge these inequities?
- How are we being attentive to which students are taking up the most space within digital learning environments and how this relates to power within society?
- How are we providing additional support for students who are more greatly affected by unjust systems and power inequity within society?

A Starting Point

This resource is intended to be an initial foundational resource for districts to utilize in the planning, implementation and leadership for digital learning. The digital learning team at Oregon Department of Education will continue to develop this resource through continued collaboration with educators and leaders from around the state. If districts or schools have examples, elaborations, or would like to contribute ideas or stories to future additions to this resource, you can connect with ODE through this form.

Featured Resources for Starting an Online or Blended Program

The following resources are recommended for districts starting new online or blended programs.

- Planning for Quality: A Guide for Starting and Growing

 <u>a Digital Learning Program</u> includes critical operational
 questions and recommendations for those starting an new
 online program.
- The <u>Planning Guide for Online and Blended Learning</u> includes operational recommendations and the various dimensions of a blended model that must be identified for successful operation.

HOW THIS RESOURCE IS ORGANIZED

This resource is designed to connect the *Five Key Components for Digital Learning* to actionable ideas for educators:

- Five Key Components to be considered for digital learning.
 - Design Considerations to actualize each component. Most are applicable to all learning environments with some specific to online learning. Resources are embedded in or found at the end of many Design Considerations.
- Key Components and Design Considerations were included in this resource because they contribute to educational equity and quality and:
 - Present opportunities to be enhanced through digital learning and education technology; and/or are
 - Important in all learning environments but need special attention in digital learning contexts.

Building a common vision and vocabulary for digital learning will help district teams in this work. Districts may consult the <u>definitions section</u> in this report for definitions of key terms used in this resource.

Defining 'Digital Learning'

Within this document, digital learning refers to "any instructional practice that effectively uses technology to strengthen a student's learning experience and encompasses a wide spectrum of tools and practices," as defined in ESSA. This is a comprehensive definition which includes the use of technology and practices across all instructional models, from in-person to fully online learning environments. The aim of this resource is to provide support for teaching and learning across a variety of circumstances and models, resulting in deeper learning and belonging for students.



Relationships & Mental Health

RELATIONSHIPS & MENTAL HEALTH

ODE's Mental Health Toolkit

ODE's strengths-based Mental Health Toolkit provides trauma-, SEL-, and racial-equity-informed tools to care for students and the adults (e.g., teachers, parents, school staff and leaders) that guide and nurture them in all learning environments.

Create structures to build community.

- Maximize collaboration and interaction with peers and teachers. Research indicates that, on average, online learning that is collaborative or instructor-directed is more effective than where online learners work independently. <u>Evaluation of Evidence-Based Practices in Online Learning (USED)</u>
- Hold regular, synchronous whole-group sessions focused on community building (e.g. virtual clubs, and social
 activities), along with synchronous small group sessions to develop strong personal relationships (e.g. one-on-one
 check-ins, tutoring, small group lessons).
- Provide informal and personalized ways for students to connect with educators through office hours or non-academic activities (e.g. lunch and learns, empathy interviews, classroom helper roles).



Foster a sense of belonging and safety for each student.

- Devote ample time and space at the beginning of the school year and each day to connect and build safe, trusting relationships.
- Learning is profoundly social. Quality learning experiences require healthy interpersonal relationships and a learning environment where people feel safe, acknowledged, and valued.¹
- Leverage digital tools to strengthen relationships and develop connections with and between students and families. Encourage students to turn on their cameras, but allow students to decide if they want to be on screen.
- Provide opportunities for students to engage communally (this can be hard if digital learning occurs outside of a school building, but it can be as simple as having students use reaction features and emojis in the chat)
- Facilitate conversations about identity with students to develop safe and inclusive learning spaces. Adults can model this by introducing themselves with their most common identifiers (e.g. white, cisgender, able-bodied, heterosexual female who uses she/her pronouns). Ask students their pronouns and allow them to add their pronouns to name tags, usernames, etc. Pronoun resource.
- Develop digital citizenship skills prior to and during digital learning experiences as an integral part of student safety, security, and belonging. Remind students these skills are not about avoiding

- all of the wrong things or extreme scenarios, but rather how to successfully navigate a digital world. <u>ISTE Digital Citizenship in Education</u> | <u>Commonsense.org Resources</u>
- Provide training and support to staff on the four pillars of ODE's integrated model of mental health.
- Students, educators, and families are entitled to safe and welcoming learning spaces, free of discrimination, harassment or intimidation. Oregon's <u>Every Student Belongs</u> rule applies to online contexts and requires districts to implement policies that prohibit the use of specific hate symbols.

https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/social-emotional-learning.pdf;
https://learningpolicyinstitute.org/event/webinar-sel-policy-foster-connection-after-trauma

Relationships & Mental Health

Partner with families to create a supportive learning environment.

- Provide multilingual guidance for families and students to co-create an inviting learning space at home, especially for blended and/or online programs.
- Provide multilingual training for families and students on digital tools that are critical for learning.
- Create consistent, comprehensive and transparent channels of communication with families that honor their home language and culture. <u>Using Technology to Connect with Families</u>
- Families are critical partners whose mental health and belonging are paramount to student success. Provide families with multilingual support resources such as <u>Oregon's Safe and Strong</u> <u>Campaign</u>, as well as lists of local community and county health and mental health providers.
- Engage with families to better know what they need and how you can work toward their goals

Supporting staff is essential to supporting students.

- Cultivate a school culture that puts action behind its commitment to teacher health and belonging. Review or establish processes for educators to seek help without fear or penalization.
- Provide school staff opportunities to build relationships and connections with peers throughout the school year.
- Create time and space for teachers to prioritize self-care and their mental health. Ensure that all school wide wellness or self-care professional learning is never mandated and always optional.
- Ensure educators have full access to in-person or telehealth mental health services and supports via an Employee Assistance Program or other means.





HIGH-QUALITY INSTRUCTIONAL MATERIALS

Evaluating Digital Instructional Materials

ODE's <u>Digital Instructional Materials</u>: <u>Requirements & Recommendations</u> provides more detailed information on processes, requirements, and additional considerations for digital instructional materials. New curriculum adoption is not always necessary when teaching online; most curriculum materials can work for in-person, online, or blended situations.

Reports of Technology Information in Curriculum

Determine a quality core curriculum.

- When adopting core digital instructional materials, reference <u>ODE's Adopted Instructional Materials list</u> or undergo an independent adoption process.
- Use established criteria to determine the quality of digital instructional materials and online courses. <u>Quality Matters Resources</u> | <u>Oregon's Adoption Criteria for Instructional Materials</u>
- Adaptive/personalized learning software can be strategically used to meet individual student needs, but can also
 present concerns of bias, lack of transparency, diminished teacher facilitation of the learning experience, and lack
 of rigor. ODE's Comprehensive Distance Learning Guidance (Appendix 2)

High-Quality Instructional Materials

Focus on culturally and linguistically responsive teaching.

- Curate engaging content that creates opportunities for students to feel seen, acknowledged and known through their learning.
- Provide "mirrors" reflecting students' own worlds and "windows" into the history, traditions, and experiences representative of a wide range of cultures and groups.
- Use cultural scaffolding by providing links between new academic concepts and materials with students' background knowledge that comes from their families, communities, and lived experiences.
- Honor student's funds of knowledge they bring to the classroom and use their input to shape assignments, projects, and assessments.

High Quality Instructional Materials | www.oregon.gov/ode

Evaluate digital materials to ensure they do not perpetuate stereotypes or fail to represent certain identity groups. Choose materials that reflect a diversity of contributions to society, including preferencing the impacts and contributions of marginalized communities.

New America's Teacher Competencies that Promote Culturally Responsive Teaching





PEDAGOGY & PRACTICE

Teaching Standards for Digital Learning

Integrating digital learning standards for teachers and coaches in both instructional design and teacher support can establish a shared vision for instruction across subject areas. NSQ National Standards for Quality Online
Teaching | ISTE Standards for Educators | ISTE Standards from WA with CCSS Connections

Design for purposeful learning.

- Make learning objectives clear and focused by explicitly stating and explaining learning targets at the beginning of every lesson. This can be paired with a pre-recorded video or live check-in, shared agendas and discussion questions in advance of live lessons, and naming the what and how for students ahead of both synchronous and asynchronous learning.
- Chunk and sequence learning appropriately by breaking work down into smaller actions/outcomes and frequent
 progress checks. Provide brief intro (pre-recorded video or live check-in) to content or project that ensures
 students know the learning or tasks to accomplish for that day.
- Simplify technology as much as possible by carefully selecting a few platforms that best support student learning.
 Provide students and families with instructional resources on the platforms and explain why they have been selected.
- Students' working memory can become cognitively overloaded in an online or digital space through many on-screen distractions, apps, and programs. Streamline content, style, images, and video to focus on pertinent information. DU Resource on Cognitive Load Theory & Online Teaching



Center in students' lived experiences.

- Build from student funds of knowledge (e.g., strengths, culture, background, interests, heritage, and language). <u>New America's Culturally Responsive Teaching Teacher</u> Competencies
- Recognize personal biases and use materials and activities that generate inclusive and assetbased ways of thinking.
- Provide essential learning activities that are culturally relevant, meaningful, and aligned to grade level or above academic content standards; consider the context of learning at home when designing activities to leverage the assets of the home environment. Ask for student feedback on learning activities and identify the types of activities that they enjoy and learn from the best (e.g., projects, videos, games).
- Digital tools and online learning can promote more opportunities for <u>multicultural</u>, <u>social</u> justice, and culturally responsive education.





Use digital tools and instructional materials to support students' strengths and needs.

- Thoughtful planning is especially important when supporting students experiencing disabilities enrolled in a full or partial online program. While much of the pedagogy for supporting students experiencing disabilities in an online setting are the same as in a traditional setting, there may be <u>additional programming and instructional considerations</u>. It is the responsibility of the student's IEP team and teachers to consider the potential benefits of the technology and/or instructional model and how to meet each student's needs.
 Open CA Best Practices for Distance Learning | TIES Center Digital Learning Series Teaching Examples
- Explicitly plan how each modality of the <u>Oregon ELD Standards</u> will be enhanced and/ or addressed through the technology or instructional model to support students who are emergent bilingual. <u>Colorín Colorado's Resources for Technology & Distance Learning</u>
- Examine how student pacing differs when learning online and how to adjust workloads based on how long it takes students to complete assignments
- Develop learner-centered lessons with varied teaching methods and strategies and differentiated materials.
- Set up systems for students to regularly share evidence of learning through an LMS or other digital means.
- Incorporate multiple opportunities to collect evidence of learning over time (e.g., project-based learning, voice recordings, artifacts, self-assessment, community service projects, interdisciplinary work, student-designed projects, rubrics, anecdotal observations from asynchronous or synchronous classes).
- Technology often offers accessibility tools in digital instructional materials and online assessments, including text-to-speech, speech-to-text, closed captioning, magnification, and a wide range of other options described in the <u>statewide assessment accessibility manual</u>.



Pedagogy & Practice

Ensure regular, timely, and meaningful feedback.

- Develop clear success criteria through checklists, rubrics or exemplars that are shared in advance and linked so students can easily access them.
- Conduct frequent low-stakes formative assessments to avoid making a judgment based on a single piece of evidence and to sustain student motivation and active engagement. This can include formative assessments throughout and at the end of lessons (e.g., electronic survey, exit ticket, interactive videos).
- Use an LMS or other digital tool to leave specific comments, link student-specific resources, and provide real-time feedback to students about progress and understanding.
- Give whole-class feedback via morning emails, live videos and individualized feedback on learning platforms and in 1:1 check-ins.
- Leverage small group, synchronous learning sessions to give in-the-moment feedback.

Rethinking Assessment though Partnership

By building knowledge of assessment practices, schools can provide the foundation for ongoing dialogue with families about the role of assessment and how to interpret the results. <u>Assessment Literacy for Families Training Modules</u> (available in both English and Spanish).





Promote engagement, deeper learning and discourse.

- Strategically leverage synchronous and asynchronous times with the materials and goals of each lesson. For
 example, front load learning through asynchronous videos and resources while prioritizing complex learning
 during synchronous teacher-facilitated learning. <u>ODE's Comprehensive Distance Learning Guidance</u>
- Enhance student engagement by planning how students engage with asynchronous online elements.
 Students may learn more when given flexibility to replay and watch instructional videos in any order, as opposed to a static, one-time viewing. Restarting and Reinventing School
- Strategically incorporate a variety of lesson designs (i.e., authentic learning experiences, project- and/ or problem-based learning, inquiry lessons) into learning sequences along with direct and guided release instructional approaches to engage students and ensure a high level of engagement and deep learning.
- Manage the <u>cognitive load</u> for learners so they can process new information through working memory and store for long-term learning. Consider using course templates where elements like announcements, lessons, discussion boards, and more are consistently located across multiple classes. This strategy also supports parents and caregivers so they can help their learners at home.
- Audit all lessons and courses for accessibility and universal design for learning.

Powerful Frameworks for Deeper Digital Learning

The interaction of students' relationship to technology, how teachers use and implement digital tools, and the content around which learning is designed provide opportunities to reimagine the learning experience, not just replicate traditional practices online. The SAMR and PICRAT frameworks offer ways to think about and design deeper digital learning.

- The <u>K-12 Educational Technology Handbook</u> provides examples, and visualizations of the PICRAT model along with extensive information on other models for digital learning.
- This <u>resource</u> offers an entry point to understanding the SAMR model.



Digital Learning Capacity & Readiness

DIGITAL LEARNING CAPACITY & READINESS

Design backwards for long-term sustainability and systems-level change.

Start with the district's vision for providing digital learning access and opportunity for students. Assess and analyze the greatest needs. Apply a strengths-based equity-informed, anti-racist, and anti-oppressive lens to promote culturally sustaining and revitalizing educational systems that support every child.

- Plan backwards from teaching and learning needs to ensure alignment between technology purchases and readiness and the instructional and social-emotional belonging of students and staff.
- IT staffing and training should be planned based on what is needed to both maintain devices and provide technical assistance to staff, students, and families.
- Consider the students furthest away from opportunity in each school and unpack what they would need to be successful in various learning environments. Always think of the end user—the learner.

Professional Learning

The impact of educational technology is only as strong as the knowledge and skill of the educators using it. Professional learning and support is critical in preparing for and sustaining meaningful digital learning. This includes professional learning that supports:

- Best practices unique to digital learning
- Digital tools and the specific uses and function
- Student privacy and security considerations
- Creating professional learning networks and connections



Ensure access to the technology and connectivity needed for learning.

- Use eRate discounts to help with connectivity purchases including telecommunications, telecommunications services, and Internet access, as well as internal connections, managed internal broadband services and basic maintenance of internal connections. <u>E-Rate: Universal Service Program for Schools and Libraries</u>
- Staff and students need adequate devices and internet connectivity where the quality of each supports the desired instructional applications. | NMC/CoSN Horizon Report
- <u>Emergency Broadband Benefit</u> is a newly established program designed to provide eligible households internet service discounts.
- Emergency Connectivity Fund (ECF) Program can be used to cover reasonable costs of laptop and tablet computers; Wi-Fi hotspots; modems; routers; and broadband connectivity purchases for offcampus use by students, school staff, and library patrons.
- Test the district's network infrastructure to determine whether it meets the recommended connectivity adopted by the <u>FCC</u> (Internet Access (Order 34-38).
- Use these guidelines to ensure sustainable scalability as future internet access requirements change:
 - Small Districts At least 2.8 Mbps per user with a minimum of 300 Mbps per district
 - Medium Districts At least 2 Mbps per user
 - Large Districts At least 1.4 Mbps per user

Digital Promise's <u>Digital Learning Playbook</u> offers key elements and considerations for designing and providing professional learning that meets the specific needs for educators in digital learning contexts.

The Digital Learning Capacity Framework

The <u>Digital Learning Capacity Framework</u> offers a structured, clear way for leaders to assess and plan for digital learning across two dimensions: Technology & Connectivity Capacity and Teacher & Student Efficacy. Use this tool as a needs assessment and/or for ongoing reflection and improvement.



Digital Learning Capacity & Readiness

Provide device options that meet minimum requirements to access the tools and platforms.

- Select appropriate and user-friendly devices and resources for students and teachers to use.
 Ed Tech Ratings
- Invest in devices that are above base models. Base model prices may be appealing, but the machines themselves often lack the ability to run basic programs needed for teaching and learning.
- Allow students to take devices home. Consistent access to technology empowers students, ensures equity, and supports student and family engagement.
- Ensure devices have filtering applications that meet Children's Internet Protection Act (CIPA) requirements.
- Select an LMS that can keep track of learning progress and is <u>interoperable</u> with the Student Information System (SIS) for smooth data exchange.
- Prioritize interoperability and data modernization within the school's infrastructure.
- Ensure that students have access to devices at home as well as at school.
- Provide assistive technologies for all students that would benefit from its use.
 Oregon Technology Access Program



Digital Learning Capacity & Readiness

Provide training to staff, students and families around student data privacy and cybersecurity.

- Students increasingly share personal information online through activities like signing up
 for accounts. As a result, data about them is collected by devices, internet algorithms,
 companies, and third parties, which can be misused or abused. To mitigate this, partner with
 families and provide information to protect the privacy and security of their children.
 <u>USED Educational Technology Parent and Family Digital Learning Guide</u>
- Train all staff on the federal and state statutes protecting students and their information.
- Protect the privacy and security of student data including the use, collection, handling
 and governance of students' personally identifiable information. Include data privacy and
 sharing agreements in procurement contracts. The Privacy Policy Office provide technical assistance and resources such as the
 Security Best Practices website.
- An assessment of the district's <u>Cybersecurity Readiness</u> can guide the improvements and procedures needed to mitigate risk.
- Provide devices and digital tools that have been vetted (ISTE's <u>How to Choose Digital Apps, Games and Services</u>) while providing educators and families with guidance on vetting tools that meet federal privacy and security obligations for classroom and home use Student Data Privacy Consortium.





FUNDING FOR DIGITAL LEARNING

Guiding Questions for Strategic Use of Federal Program Funds.

- 1. How are federal funds invested to support the strengths and needs of students who are historically underserved by the system?
- 2. Are the use of funds in alignment with district goals and activities to enhance student learning and well being?
- 3. In what creative ways are federal funds allowing for additional access and opportunity for students? Federal funds can be used to pay for transportation to and from learning centers including schools, CBO sites, and others.
- 4. How are new flexibilities maximizing new opportunities to provide services that previously may not have been available to students?
- 5. How can federal funds be braided with both other federal and state funding to bolster additional learning opportunities, targeting students who may benefit most from additional learning and social connection?



Using federal funds to support digital learning efforts.

Districts have an unprecedented opportunity to leverage funding from multiple federal sources to support digital learning. Combining federal funds is a strategy that ensures consistency, eliminates duplication of services and allows districts to strategically direct federal grants that may not have been expended during the school year because of impacts due to COVID-19. Commonly referenced as the "braiding of federal funds", this approach helps to ensure maximum benefit to students and flexibility to districts. A full description of each ESSA federal program and the allowable uses of funds can be found in the <u>Oregon Federal Funds Guide</u>.

Activities	Access and Connectivity Funding People need adequate infrastructure and/or services for internet access and connectivity at school and at home.	Student and Teacher Device Funding People need appropriate and user-friendly devices.	Content and Instructional Materials Students learn best with high quality, adaptable, culturally responsive, and effective instructional materials.	Learning Management Systems (LMS) An LMS can help with organization and communication.	Professional Learning for Educators Training and support are necessary for the effective use of digital learning tools.
Title 1-A ²	×	✓	✓	×	✓
Title II-A	×	×	×	×	✓
Title IV-A³	✓	✓	✓	✓	✓
Title IV-B	×	×	×	×	✓
ESSER I	✓	✓	✓	✓	✓
ESSER II	✓	√	✓	✓	✓
ESSER III	✓	✓	✓	√	√
Emergency Broadband Benefit	✓	×	×	×	×
Emergency Connectivity Fund Program	✓	✓	✓	√	✓

Title IA-funds may be used to purchase devices for students to access digital learning materials and tools allowing them to collaborate with peers and educators also for integrating the curriculum throughout the school, especially if they're using a school wide plan.

³ Title IV-A (IV-B if the school is running an afterschool program) can be used for professional learning, STEM/STEAM, computer science resources and to expand equitable access to AP courses, and to implement project based learning.

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