

NORTH CAROLINA  
**DIGITAL**  
LEARNING PLAN

Findings from Site Visits

*Prepared by the Friday Institute for Educational Innovation for the  
North Carolina State Board of Education-Department of Public Instruction*

Summary Findings  
From  
Site Visits

## **Learnings from Intensive District Site Visits that Informed the Development of the North Carolina Digital Learning Plan**

As part of its multifaceted approach to developing the North Carolina Digital Learning Plan, the Friday Institute analyzed many sources of information about digital learning across the state. The results of these analyses were used to generate the findings that informed the development of the Plan.

One of the ways the Plan team constructed these findings was through several deep-dive district visits, during which staff members spent several days in 18 districts, along with visits to charter schools.

The specific learnings from those visits, summarized here, helped to support the development of the broader sets of findings reported in each section of the Digital Learning Plan. Each learning has been placed in this document in the Plan area of recommendations it most directly influenced, but in many cases, learnings informed findings in more than one of the Plan recommendation areas.

Each learning in this document is followed by specific examples of strategies used by districts that have been successful in their transition to digital learning, and/or examples of challenges faced by those districts related to that learning.

## Technology Infrastructure and Devices

### ***Districts successfully transitioning to digital learning have adequate school networks***<sup>1</sup>

*Strategies:* Almost half (44%) of the schools in NC have *digital learning-ready wireless* in place, and a little more than half (53%) only need increased wireless networking to become *digital learning-ready*.

*Challenges:* A handful of schools (3%) have limited or no wireless networking, and will require a full deployment to become *digital learning-ready*. Also, though many districts and schools have infrastructure in place, some teachers and many students have indicated that available Wi-Fi connections are not yet consistent, dependable, or fast.

### ***Rolling out end-user devices requires purposeful and extensive planning***

*Strategies:* Successful districts are thoughtful and purposeful in rolling out devices for their 1:1 or Bring Your Own Device initiatives. They first make extensive short-term and longer-term plans with scaffolded and/or staggered stages of implementation and clear communication to all stakeholders. These districts also have well-developed processes for device selection, procurement, and management, and they have plans in place for device sustainability (e.g., replacement cycles).

*Challenges:* While recognizing that each student and teacher needs a device in order to make the shift away from hard copy textbooks, many districts are having difficulty securing sustained, dedicated funding for those devices.

### ***Successful schools plan for overcoming pre-existing physical environment constraints***

*Strategies:* Learning environments in mid-transition digital learning schools have at least some form of digital display system for teachers and students to use during the transition. These systems are consistently available and sufficient for teacher and student needs.

*Challenges:* Digital learning environments require adequate and convenient outlets for charging devices in classrooms and other educational spaces. Many schools struggle to provide adequate access to power outlets because most schools were not built with these digital-age learning needs in mind.

### ***Digital learning requires planning for adequate technical support***

*Strategies:* In several districts that are successfully transitioning to digital learning, schools staff their technical support help desks with students who can assist teachers

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<sup>1</sup> This finding also was informed by data from the state's annual Wireless Infrastructure Survey (Survey item: "Digital Learning Ready Wireless provides high density wireless coverage [1/1+ AP per classroom] for instructional areas, and nominal coverage in all other areas").

and other students with troubleshooting and basic technology needs. This strategy not only offers students hands-on experience for course credit but also provides a valuable service to the school.

*Challenges:* Almost all districts and schools struggle to retain a sufficient number of qualified personnel with the expertise to support device and technology maintenance. As a result, school and district staff frequently report deficiencies in timely responses to work requests. In addition, it is sometimes challenging to clearly define and stabilize district and school technicians' roles; in some districts, ITFs, coaches, or other instructional personnel are asked to complete technical support requests, which interferes with their ability to fulfill their primary job objectives.

### ***Successful districts monitor infrastructure policies***

*Strategies:* Districts that are successfully transitioning to digital learning have plans in place for technology infrastructure refresh cycles.

*Challenges:* In many districts, content filtering remains an issue. While district leadership often reports having successful content filtering policies and processes in place, many teachers and students report that content is still inappropriately filtered (e.g., filtering websites that should be available or allowing access to inappropriate content). Many staff and students also report a need for single logins across applications.

### ***District and school digital learning transition plans must account for Internet access outside of school***

*Challenges:* Home access is a serious need in almost every district in the state. Although some districts have attempted to address this need through the use of alternative wireless access points throughout their communities (e.g., public libraries, main street hotspots, school buses parked in neighborhoods, fast food and restaurant options), home access remains a concern and threatens districts' abilities to provide equitable education for all students as they transition to digital learning. Addressing home access issues may require public/private partnerships.

## Human Capacity

### ***Leadership in digital learning is a shared responsibility across all personnel***

*Strategies:* A key personnel component is providing school-based Instructional Technology Facilitators (ITFs) or other support staff member. Successful ITFs typically have been successful classroom teachers first, and they have expertise in both instruction and technology. They provide differentiated professional development to teachers and develop relationships with multiple teachers (which typically precludes assigning an ITF to more than one school). Digital learning personnel arrangements in the most successful districts include formal communications pathways between ITFs across the district and between the ITFs and the leadership team at the district level. Successful districts also develop classroom teachers as digital learning leaders by emphasizing a “grow or go” mentality (i.e., teachers who do not embrace the transition to digital learning are encouraged to move on) and by giving teachers opportunities to become familiar with devices (through early exposure and training) before giving devices to students. Finally, a fully-developed personnel plan includes strategies for hiring and retaining technicians as technology usage grows.

*Challenges:* Statewide, there is a need to redefine the role of the school media coordinators to more closely align with the goals of digital learning. Also, many LEAs are struggling to hire the staff they need because either they cannot compete with private sector pay (for technicians) or because applicants (e.g., new teachers coming out of teacher preparation programs) are not prepared for digital learning.

### ***Leadership in digital learning supports systems for continuous improvement***

*Strategies:* Successful district leaders build formal structures for continuous improvement, such as PDSAs (Plan-Do-Study-Act), feedback loops, and walk-throughs. These leaders also bring in outside parties to evaluate progress when necessary.

### ***Successful digital learning requires a shift in educators’ roles***

*Strategies:* Successful districts are aware that, in addition to being familiar with digital devices, teachers also must make shifts in their pedagogical thinking (e.g., from being the “keepers of knowledge” to the “facilitates of knowledge growth”).

*Challenges:* Many districts are struggling with determining the most effective ways to train teachers and principals for these role shifts.

### ***Professional learning has a digital learning focus***

*Strategies:* In successful districts, ITFs deliver personalized training for teachers on effective pedagogical practices for using technology and digital resources. This in-house training is differentiated by using real data from classroom observations and student assessments. Training is delivered in manageable segments so that teachers can master tools and instructional processes in stages. Successful districts design professional learning that focuses on only a handful of quality, vetted resources, which

maximizes use of available time and funds, minimizes redundancies in the topics covered, and does not overwhelm teachers with long lists of resources to consider.

***Digital learning districts encourage various kinds of participation in professional learning***

*Strategies:* Successful districts offer a range of opportunities for teachers to participate in professional learning, such as early release days, in-school planning time, regional events, and virtual professional learning. These districts also empower teachers to determine their professional learning needs through the use of data and the help of district level staff and ITFs. This customization is especially critical during the early phases of a district's transition, when teachers may have more difficulty knowing their own professional learning needs, and when differences in staff readiness for digital learning are greatest.

*Challenges:* It is difficult for districts to strike a balance between allowing teachers to determine personal professional learning trajectories and ensuring that all teachers in the district are adequately prepared. Some teachers have reported that the amount of mandated professional development has been burdensome (though others have recognized that training in certain areas should be mandated so that all teachers share basic digital learning competencies).

***Successful districts leverage professional learning communities (PLCs)***

*Strategies:* Districts use PLCs to support peer-to-peer digital learning, resource-sharing, and effective data use. Effective PLCs typically have coaches or ITFs who coordinate a PLC's digital learning-related work. These districts also support teachers who take the initiative to create groups to support ongoing professional learning, whether face-to-face or via online platforms (e.g., Edmodo) that help them share resources.

*Challenges:* Many schools do not yet have key personnel like ITFs to lead PLCs; however, some schools are trying to empower "digital learning leaders" or lead teachers to fill the role. In addition, some teachers report feeling overextended and view PLCs as just one more time commitment or responsibility. Some teachers may need to be incentivized to participate fully (e.g., via reduction in other responsibilities).

***Successful districts use a range of formats for professional learning***

*Strategies:* In successfully transitioning districts, professional learning is available in multiple formats. These districts use a train-the-trainer approach to support continuous growth and to navigate constrained budgets (e.g., they rely on external, third-party providers for a limited number of staff, who then train others). They also use technology (Google Docs, Edmodo, Haiku) to facilitate the delivery of and participation in professional learning opportunities. Computer-mediated professional learning allows districts to support personalized learning efforts, can be facilitated via PLCs, and supports synchronous and asynchronous learning opportunities. Finally, districts continue to use face-to-face professional learning models when they can, because

teachers are most receptive to peer-delivered professional learning that includes model lessons that they can immediately apply and that allows opportunities for in-person teacher collaboration.

*Challenges:* The state-provided resources on Home Base do not yet meet all of a district's professional learning needs; successful districts typically supplement Home Base with in-house or third-party-provided professional development. Some districts are hesitant to rely on Home Base at all and currently do not use the system for any professional learning needs.

## Content, Assessment, and Instruction

### ***Digital learning is driven by high-quality digital content***

*Strategies:* A very small number of districts compensate teachers and other staff to create curriculum materials and other resources for teacher in their districts. Districts that are farther along in their digital learning transitions also tend to have formal structures in place for vetting digital content. Some districts are integrating state-provided online learning resources (SchoolNet, Open Class, North Carolina Virtual Public School) more fully into their curricula.

*Challenges:* Even successful districts are struggling to find high-quality digital content aligned to the state standards; some are even turning to other states' resources. Vetting and curating appropriate content can be a time-consuming process. Many districts also report that consistently implementing learning management systems is a challenge, and those early in the transition have trouble finding cost-efficient content and reliable platforms.

### ***Data systems should allow educators to fully leverage assessment results***

*Strategies:* Digitally-savvy educators understand the potential of a free or inexpensive centralized data system, and many note that local data and assessment components already are in place to complement such a system (shared benchmarks, free and paid online assessment systems [such as STAR or mClass], and support from local data analysts or DPI staff). Many schools report that they already have cultivated a culture of data-driven instruction by developing data teams and by expanding the role of PLCs. Some educators note that Schoolnet provides useful item banks for mathematics and English Language Arts.

*Challenges:* Educators report that Schoolnet is less useful for certain subject areas in which item banks are sparse or non-existent (e.g., social studies). They also note that making their own tests in Schoolnet is challenging and time consuming (e.g., hard to integrate with content systems, does not allow for a single login for all assessments, could be more user-friendly). As a result, many make use of other freely available systems (e.g., Google Forms, Flubaroo, or Kahoot). Shortages of up-to-date devices and infrastructure are another challenge to transitioning to digital assessment.

### ***Assessment mediated by technology allows for the creation of learner profiles***

*Strategies:* Teachers in districts that are successfully transitioning to digital learning report using data from assessments to differentiate instruction, guide remediation, and create flexible small student groups.

*Challenges:* Staff in many districts note the challenge of providing the extensive training required to prepare teachers for personalized learning. They also note a need for tools that can help them differentiate content based on students' assessment results.

***Personalized learning should be supported by authentic assessments***

*Challenges:* Teachers and principals note that it would be useful to have more assessment items available to them in Home Base that target higher-order thinking skills, as well as more performance-based assessments. Creating these kinds of assessments is difficult and time-intensive. They also express a desire to be able to share student portfolios online.

***Digital technology should support collaborative development of assessments***

*Challenges:* Although many teachers note that they use pre-made Schoolnet tests, or develop tests on their own to share with others, few teachers are creating assessments with other teachers. These teachers would like a system that enables collaborative assessment development and that makes it easy to share assessments. Many teachers note a need for more training on how to develop assessments and on how to use items appropriately for their subject areas. Others note some teachers still resist the idea of creating and using online assessments.

***Successful digital learning is student-centered***

*Strategies:* Students who have frequent access to devices appreciate the autonomy that it provides and the ability to set their own pace. Students in successfully-transitioning districts already have begun to recognize that teachers are guides in this process who set boundaries and provide resources.

*Challenges:* District leaders and teachers are still developing a shared understanding of what student-centered learning should look like.

## Local Digital Learning Initiatives

### ***Leadership in digital learning begins with development of a shared vision***

*Strategies:* Leaders in districts that are successfully transitioning to digital-age learning collaborate with all stakeholders—administrators, teachers, parents, and students—to construct a vision for that transition. These visions typically address: *necessity* (for example, why the transition is important to student learning); *coherence* (how the various parts of the plan fit together, from teams of people to the different devices being purchased); *communication* (how information about the transition will be shared); *teaching and learning* (for example, how the district’s digital learning approach supports differentiation); and *outcomes* (specific learning targets). Often, leaders develop a visual representation of the vision as well and post it prominently to help encourage consistent application of the vision throughout the school or district. Finally, successful visions are neither one-size-fits-all nor entirely unique; schools, districts, and the state all need to develop visions that complement and support each other.

### ***Effective leadership in digital learning builds opportunities for communication and collaboration***

*Strategies:* Strong district-wide communication and feedback networks are necessary for ensuring that all staff are informed of the district’s shared vision and model for digital learning. Leaders in successful districts use digital tools (such as Moodle and Google Docs) to encourage cross-departmental collaboration at the district level, and they actively increase interactions among these departments to reduce siloed thinking about digital learning. Effective digital learning leaders also create highly collaborative school-level teams that are dedicated to the digital learning transition (often including a combination of Instructional Technology Facilitators, media coordinators, blended learning coaches, lead teachers, and other specialists) and recognize that teacher-to-teacher collaboration is necessary to support and spread the transition to digital learning.

## Policy and Funding

### ***Digital learning leaders plan for sustainability***

**Strategies:** Currently, most transitions to digital learning in North Carolina are supported by time-limited grants. Leaders in successful districts leverage the human capacity they build during grant cycles to continue to support digital learning once the grant period ends.

**Challenges:** When they rely on grant funds to support digital learning, district leaders later struggle to maintain the staff and devices necessary to sustain progress when the grant cycle ends. Often, once a grant ends, staff critical to digital learning must absorb additional job responsibilities because there is no longer financial support for their digital learning roles. Similarly, high staff turnover can lead to digital learning set-backs when staff essential to the digital learning transition leave.

### ***Leadership in digital learning requires thoughtful adoption of supportive policies***

**Strategies:** Leaders in districts that are making successful transitions to digital learning have the support of their local funding bodies and decision-makers (e.g., local school board, county commissioner, etc.). These districts also create well-structured policies for launching and guiding a transition to digital learning, such as ensuring that teachers have time to adapt to new devices before they are rolled out to students. Leaders in successful districts also make thoughtful, local context-sensitive decisions about devices, such as whether student access will be 24/7 or in-school only, how device insurance will be funded (and how much parents will be required to contribute), and how to handle logins, passwords, and privacy for all students and teachers.

**Challenges:** Much of the local-level policy decision-making process would benefit from parallel state-level policy revision and development in such areas as student seat time requirements (which can impede digital learning by preventing schools from fully leveraging the benefits of anytime, anywhere learning), plans for increasing home Internet access, and digital learning-sensitive reviews of state standards and assessments.

## Regional and State Support

### ***Effective leadership in digital learning is supported by community engagement***

**Strategies:** Leaders in successfully transitioning districts actively engage students' families and the broader community in the transition process, both before and during the transition. By holding events at school before students receive devices, district staff have an opportunity to familiarize parents with new devices, walk them through paperwork, and discuss why the district believes in the transition to digital learning. These interactions also provide leaders with opportunities to address opposition to the shift to digital learning (e.g., from parents who are concerned that students will simply “stare at screens all day”). Developing partnerships with local universities, community colleges, and local business also provides support to the district for digital learning in the form of professional development for staff, supplemental funding, and qualified candidates for open positions.

**Challenges:** Focusing on building buy-in from parents and community members can be difficult when home Internet access is limited. Some districts in rural areas with less access to universities, community colleges, and local businesses have struggled to build an effective foundation of community partnerships.