

North Carolina Learning Technology Initiative (NCLTI) Framework for Planning

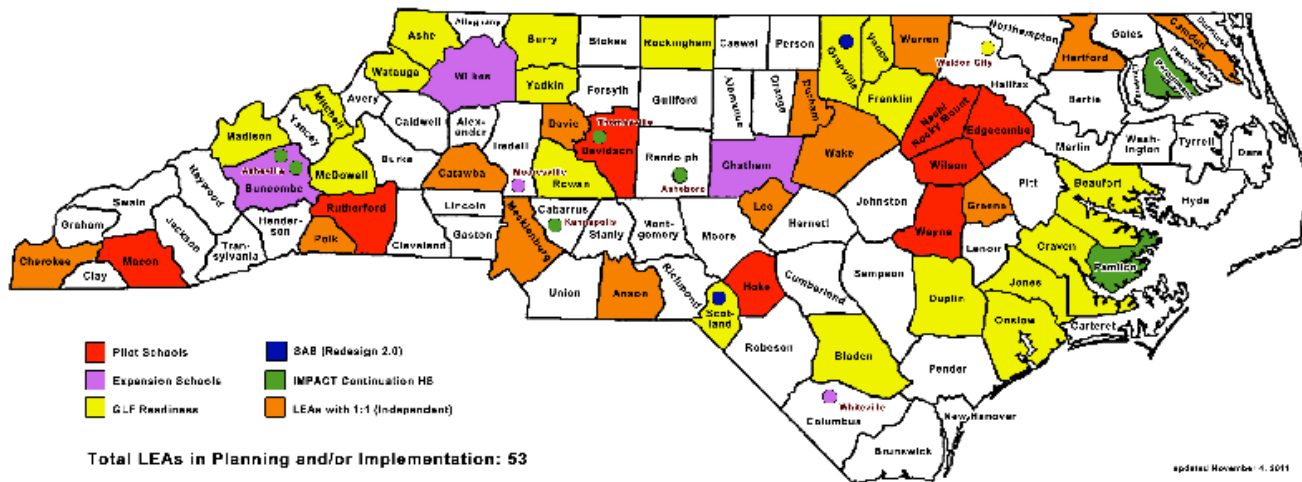
Introduction and Purpose

This document presents a framework for planning technology-enabled learning in North Carolina public high schools. Any educational initiative requires a rigorous plan in order to succeed. An overarching planning framework provides a common language and systematic approach to implementing *NCLTI*. The planning for a technology-enabled learning initiative involves data analysis, focused committed leadership and vision, strong communication, community involvement, high quality on-going professional development, curriculum and pedagogy, human resources, policy, technology (hardware, software and infrastructure), funding, evaluation and organization as necessary components of a sustainable model for supporting future-ready students in North Carolina. *This framework puts forth a blueprint and comprehensive approach for building capacity to support a large-scale technology-enabled learning effort.*

The framework for planning builds upon the lessons learned from the *School Connectivity Initiative* (SCI) and the evaluation of the *North Carolina Virtual Public School* (NCVPS), *Learn & Earn Online* (LEO), *IMPACT* Model Schools, the *Golden LEAF* Readiness Initiative, and schools and districts throughout the State that have begun technology-enabled learning programs in which every student and teacher receives a computer.

Where is the North Carolina Learning Technology Initiative?

1:1 Funding Sources for Local Education Agencies (LEAs)



Conditions for Success

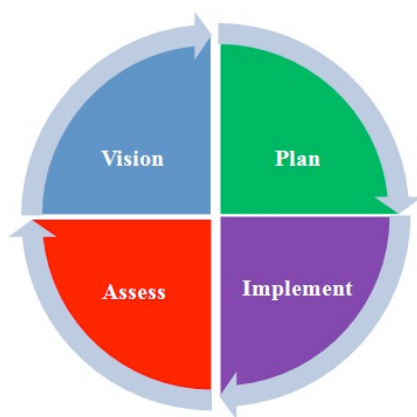
The *NCLTI Framework for Planning* is based on several conditions essential for successful implementation of learning technology initiatives as documented in an October 2009¹ submission to the State Board of Education (NCSBE). High schools implementing learning technology initiatives will require all the elements of future-ready schools described by NCSBE and NCDPI. In addition, research on the impact of technology in high schools in general, and on technology-enabled learning programs in North Carolina and in other states, shows that success will also require the following:

1. A well-articulated vision and rationale for *NCLTI*, along with a strategic plan for implementing the approach;

¹ Corn, J.O. (2009, October). *Critical issues summary: Evaluation report on the progress of the North Carolina 1:1 learning technology initiative (Year 2)* (NC State Board of Education Report). Raleigh, NC: Friday Institute for Educational Innovation, North Carolina State University.

2. Engagement and support from all constituents of the school community, including the LEAs, local government, the business community and parents;
3. Collaborative school and district leadership teams comprised of instructional, curriculum, technology, and administrative leaders who are committed to the *NCLTI* approach;
4. High quality professional development and ongoing support for teachers as they reshape and update teaching practices to take full advantage of the available technology, as well as for administrators as they update school management practices and support the teachers;
5. School-based staff, such as instructional technology facilitators and media specialists, who provide instructional support for the use of technology to enhance learning;
6. A portable, wireless computing device for each student, teacher and administrator;
7. Additional technology to support teaching and learning in each classroom, such as a scanner, projector, digital white board, document camera and digital camera;
8. High bandwidth connectivity to the school and sufficient wireless connectivity throughout the school;
9. Digital education resources for teachers and students, including tools and resources that support productivity (e.g., word processing), web 2.0-based activities (e.g., blogs and wikis), e-learning (e.g., learning management and conferencing systems), curriculum planning, classroom management, student assessment and teaching and learning in specific content areas;
10. School-based technical staff who ensure that the technology is maintained, kept up-to-date and repaired as needed;
11. Strategies for ensuring student safety and appropriate use of computers in accord with the Children’s Internet Protection Act (CIPA) and local policies, while still enabling teachers and students access to a wide range of information and communication resources;
12. Sustainable funding to support the total cost of ownership (TCO) of the technology resources and the costs of ongoing professional development.
13. Evaluation processes in place to provide adequate data to make critical programmatic, as well as instructional, decisions.

Applying the Framework



<u>Data Collection Tools</u>
VISION —STNA, EVAAS
PLAN —Logic mapping, PDQ, TWC surveys
IMPLEMENT —LoFTI, new TPCK, surveys, PDQ, rubrics, tech use checklist
ASSESS —all the tools will be utilized; local assessment tools

Framework for Planning Components

This section describes how the four components of the *NCLTI Framework for Planning* work together. As part of a continuous improvement approach, districts/schools can and should make adjustments to these components on an ongoing basis.

- **Vision:** It is essential to begin any new initiative or plan by establishing a common vision to create buy-in and engage stakeholders. It is through the visioning process that consensus building will assist with goals, rationale and core principles for the initiative approach. It is beneficial for stakeholders to see the vision early in the process and modeled throughout. Additionally, districts/schools seeking new learning

initiatives are encouraged to visit model demonstration sites that focus on technology-enabled learning environments and engage in networking to provide assistance with professional development and mentoring during the planning and implementation phases.

- **Plan:** Once the shared vision is established and stakeholder support has been secured, leadership teams are encouraged to seek resources at both the State and local education agency (LEA) levels to assist with effective planning. Detailed guidelines should be developed for implementing and sustaining the new learning technology initiative as designed by the master plan. Support services, in the form of both a support coach and a mentor are recommended to assist district/school leadership teams as they plan and eventually implement their efforts. The support coach is essential to assisting LEAs build broad-based support for defining and disseminating the vision, goals, rationale and principles for the new learning technology initiative. The coach further assists by guiding leadership teams to develop a model for sustainability, which includes ongoing funding required for staffing, technology, maintenance and supports in order for districts/schools to successfully maintain the *NCLTI* program.
- **Implement:** Utilizing the steps outlined in the master plan, leadership teams should begin to discuss the guiding questions in the customized implementation plan to lead to implementation. Project timelines should determine deployment at various stages of the school/district implementation. High quality professional development for staff and administration should be planned and implemented at least six months to a year prior to student rollout.
- **Assess:** New instructional technology innovations emerge on a regular basis, such as Web 2.0 applications, blended learning environments and virtual schooling. This component focuses on methods of evaluating new and existing technology initiatives toward helping districts and schools make informed decisions about adopting and appropriately implementing innovative practices in schools. In addition, there is assistance in determining the impact of current efforts through the use of evaluation resources (e.g. planning worksheets, logic models, data sources) developed or identified specifically for use in schools and districts.

NCLTI Toolbox: A Description of the Tools

NCLTI Readiness Assessment and Rubric Score Chart

- The *NCLTI Readiness Assessment* is based on review of the Technology Standards & Performance Indicators for Students & Teachers (ISTE NETS-S, ISTE NETS-T), the NC IMPACT guidelines, Texas Star Chart and the *NCLTI* Planning Framework (December 2008). The assessment includes readiness criteria and a rubric to determine whether a district/school is poised to successfully launch a new learning technology initiative. For agencies not ready to implement *NCLTI*, this tool defines a series of steps and supports that will enable them to become prepared. Additionally, the assessment determines criteria to prioritize schools for support to implement *NCLTI*.

Master Plan & Mapping Document

- The master plan and mapping documents are comprehensive documents, long-range in view, which are intended to steer development toward the vision. The information and concepts presented in the master plan are grounded in research of best practices and lessons learned and are intended to guide LEA decisions. The master plan depicts the vast complex components the LEA will need to explore, assess and plan for during both the planning and implementation phase prior to deployment. The master plan mapping document drills further into the planning elements and assists district leadership with focusing on the decision-making process.

NCLTI Implementation Plan

- The customized *NCLTI* implementation plan is a guideline for leadership teams from districts/schools created from the best practices and lessons learned as part of the evaluation of the initial pilot schools within *NCLTI*, as well as research and data gathered from established and current technology-enabled learning initiatives nationwide. This plan is a living document and should be constantly revisited, evaluated and updated by team members.

NCLTI—Coaching and Support Services

Support Coach Role

Support coaches provide services to LEAs to build broad-based support for defining and disseminating the vision, goals, rationale and principles and obtaining feedback from all constituents.



The goal of the coaching program is a collaborative, growth-oriented, learning-focused relationship between the leadership team and coach. This relationship will facilitate successful program implementation and ultimately lead to improved student learning.

Support coaching is an interactive and developmental process where the coach enables the recipient to find their own solutions, discover new opportunities and implement actions. The underlying principle for using coaching is that the participant will become better equipped, increase their ownership and ultimately their confidence, satisfaction and performance.

Attributes of a Successful Coach



The coaching approach is centered on identifying and nurturing the leader's individual strengths and helping them to reach new levels of professional success and satisfaction. It allows for ongoing site-based, personalized professional development.

Coaches deliver customized support services in the areas of:

- Framework Design
- Funding
- Sustainability
- Curriculum & Instruction
- Technology
- Administration
- Infrastructure
- Professional Development

NCLTI – Professional Development (PD) Approach

An essential component of the *NCLTI* is a consistent professional development approach, designed to a) provide educational leaders with the knowledge and resources necessary for planning and implementing successful technology-enabled learning initiatives and b) provide teachers with a pedagogical framework, teaching strategies, web 2.0 tools and resources to enhance teaching and learning in the content areas. The *NCLTI* professional development approach reflects research-based principles of effective professional development (e.g., Darling-Hammond, Wei, Andree, Richardson, and Orphanos, 2009²) such as:

- Fostering a deepening of subject-matter knowledge, understanding of learning, and appreciation of students' needs;
- Centering around the critical activities of teaching and learning;
- Engaging educators in professional learning communities;
- Providing experiences that are sustained, intensive, and woven into the everyday fabric of the teaching profession.

The *NCLTI* – PD approach is one that combines face-to-face and online activities, giving the participants opportunities to experience educational use of technology to support their own learning, as well as an

² Darling-Hammond, L., Wei, R., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council.

understanding of the core elements that are necessary for launching successful technology-enabled learning programs.

Face-to-Face Professional Development

Technology Leaders Institute: Supporting Instructional Technology Facilitators (ITF)

The *1:1 Pilot Initiative* and *Project IMPACT* evaluations, along with studies of programs in other states, document that school-based ITFs (instructional technology facilitators,) who provide professional development, coaching, co-teaching, digital learning resources and other direct, day-to-day support for teachers is critical to the success of technology intensive programs. Based on this, the *NCLTI – PD* approach focuses attention on supporting the people who will play this role in the schools (these individuals may also have titles such as media coordinator, curriculum director or lead teacher.) An annual statewide face-to-face professional development program specifically for ITFs is critical to ensuring these professionals are current on emerging technologies and teaching strategies that can be leveraged in technology rich environments. A few sample goals for these ITF professional development institutes may include:

- Sharing strategies and resources;
- Providing updates and hands-on explorations of new tools and resources;
- Preparing the ITFs to implement professional development programs in their own schools/districts;
- Preparing the ITFs to support teacher and administrator involvement in online professional development activities; and
- Providing networking opportunities to begin a professional learning community in which ITFs with different areas of expertise can support each other across districts.

Leading Innovation in a Technology-Rich Classroom: Supporting Core Content Teachers

Providing teachers with a deeper understanding of the intersection of curricular standards and sound pedagogy is essential to the success of technology-enabled learning programs. Ongoing participation in face-to-face professional development that is content-specific is critical. A key component of the *NCLTI – PD* approach is a teacher institute designed to prepare teachers to leverage web-based tools and resources in the core content areas. These institutes may include many hands-on, engaging activities, opportunities for collaboration and time for discussion designed to support each of the following goals:

- Provide teachers with a sound instructional framework;
- Explore opportunities and options for utilizing different forms of assessment in the classroom;
- Experiment with content-specific/appropriate technology tools;
- Support teachers in creating a student-centered technology-rich lesson.

Leading Innovation Institute: Supporting School and District Leaders

Effective leadership is key to the success of technology-enabled learning programs. A distributive leadership approach using leadership teams that bring together instructional, technology and administrative leaders is essential. A facilitated convening that enables participants to work in school and district teams on assessing readiness, alignment of initiatives and developing detailed implementation and professional development plans is extremely beneficial for success. Institutes may also include the following:

- Team planning time to working in school/district teams on overall implementation and PD plans;
- Hands-on activities that blend skill building, strategic planning, and information sharing;
- Cross-district small group discussions and networking events.

Online Professional Development

Online courses provide opportunities for participants to interact with a facilitator and other participants, in an anytime, anywhere virtual environment, as they learn new content and strategies. Each course includes online

readings, multimedia resources, interactive activities and focused discussions. Benefits of online professional development include:

- **Reflection:** Given the fact that an online course can take place over several weeks, it gives educators the opportunity to provide more thoughtful replies to questions and class discussions.
- **Collaboration and Community:** Through interaction and collaboration, teachers forge bonds with their peers in a comfortable, collegial atmosphere. These short-term professional learning communities increase each other's content knowledge and expertise. Research shows that professional learning communities help schools reshape their culture, develop internal capacity, and most importantly, increase student achievement³.
- **Convenience:** Educators lead busy lives, and face-to-face professional development too often involves taking a day off work and the inconvenience of finding a substitute and incurring travel expenses. Asynchronous online courses allow educators to complete their training at a time and place most convenient for them.

The *NCLTI* – PD approach supports the participation in online courses enabling educators across North Carolina, in rural, urban and suburban areas, access to high quality professional development. Through the *North Carolina E-Learning for Educators* initiative, a statewide collaborative including LEARN NC, UNC-TV, NCVPS, NCPAPA, NCSSM and NCDPI, educators have access to a robust set of online courses, including a series of courses created by the Friday Institute specifically for teachers in technology-rich learning environments:

- *Getting Started in a 1:1 Classroom*
- *English I and Web 2.0 Tools in the 1:1 Classroom*
- *Discovering Linear Functions Through Technology*
- *Innovate to Transform the 1:1 Classroom with Web 2.0 Tools*
- *Journey to a Social Studies 1:1 Classroom*
- *Exploring Biology in the 1:1 Classroom*
- *Internet Safety for Schools in the Digital Era*
- *Leading in a Web 2.0 World*

³ Vescio, Vicki, Dorene Ross, and Alyson Adams. "A review of research on professional learning communities: What do we know?." National School Reform Faculty, http://www.nsrffharmony.org/research.vescio_ross_adams.pdf. pp 14-16.