

enGauge®: A Framework for Effective Technology Use

This site is designed to help districts and schools plan and evaluate the systemwide use of educational technology.

Initially released on December 1, 2000, *enGauge*® is under constant development based on feedback from field experiences. New resources and features will be added continually.

If you're new to *enGauge*, we recommend clicking the "[Intro](#)" hexagon above.

If you've been instructed to take an *enGauge* survey, please click on the "[Online Assessment](#)" hexagon above.

Please read: Upcoming changes to the *enGauge* surveys:

The *enGauge* survey engine has been supported in the past by government funding, which ended in September 2005. Because we are committed to providing excellent service and assistance to your technology planning needs, we will continue to fully support the *enGauge* engine with the following upcoming changes:

Any project begun or completed after June 30, 2006, will be billed as a subscription service. You may enroll your district in the *enGauge* survey process prior to June 30, but keep in mind that if the end date falls after June 30, or if you intend to use the surveys in the future for follow-up data comparison, your district will be billed postsurvey accordingly:

- Student surveys: \$2 per respondent
- Teacher or administrator surveys: \$5 per respondent
- Administration fee: \$100

In addition, after June 30, 2006, project leaders will be limited to one *enGauge* project per application. You may have as many schools within each project as you wish, but you only may apply for one project under your logon ID at a time. We sincerely regret any inconvenience that this may cause.

You may also want to visit:

[**enGauge® Professional Development Program**](#)

Introduction to enGauge

The Questions:

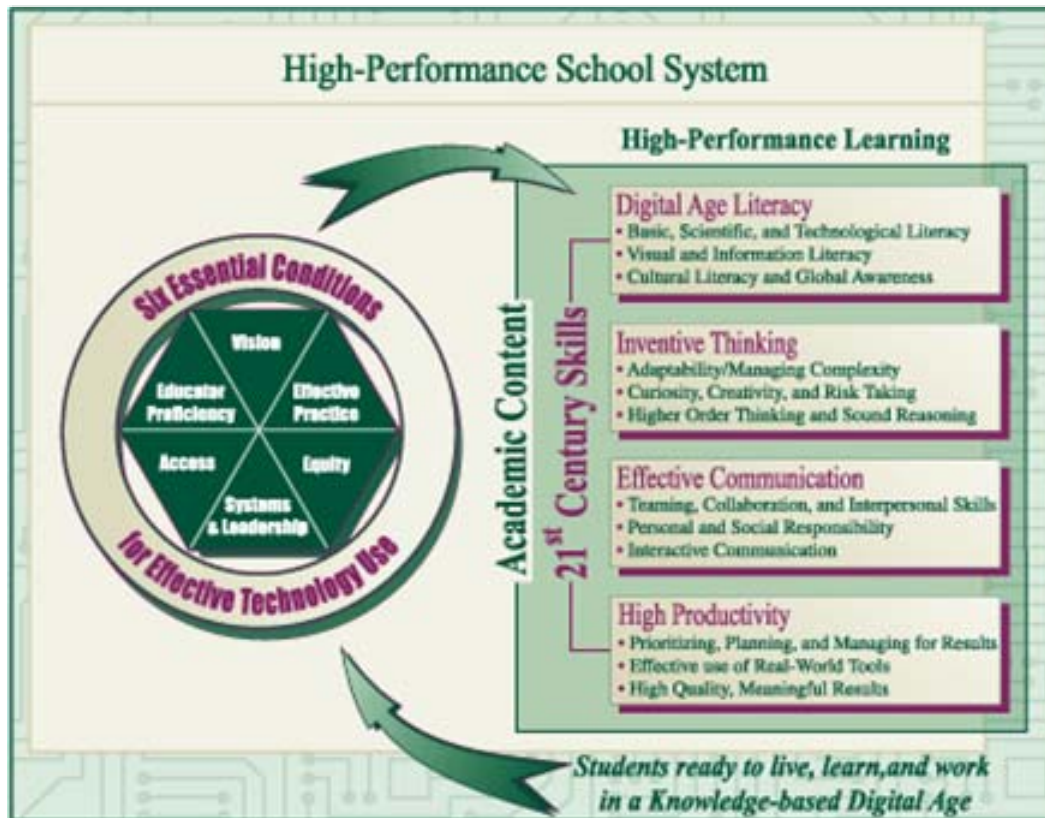
Over \$7 billion is invested annually in educational technology. Increasingly, policymakers, administrators, and teachers are being asked:

- What value does technology bring to our nation's schools?
- How can our schools ensure a return on these investments?
- Why does technology work in some schools and not in others?

The Answers:

EnGauge, a new Web-based framework developed by NCREL with Metiri Group, provides deep insights into these critical questions.

A Comprehensive Approach



Schools face the challenge of preparing students to live, learn, and work successfully in today's knowledge-based digital society. To do so will require high-performance learning of academic content using 21st-century skills and tools. To accomplish this, schools must become high-performance learning organizations. The enGauge framework identifies Six Essential Conditions—systemwide factors critical to effective uses of technology for student learning.

Framework

Essential Conditions

- **Forward-Thinking, Shared Vision**
How is the education system building a shared, community-based vision that prepares students to learn, work, and live successfully in a knowledge-based, global society?

Indicators

- **Digital-Age Vision for Learners**
Does the vision define what it means to be "educated" in a knowledge-based society? Does it describe the type of learning organization required to achieve the vision?
- **Sound Base in Research and Best Practices**
Is the vision for technology use grounded in sound research on how people think and learn and how technology influences and adds value to these processes?
- **Community Linkages**
Does the vision recognize the links that technology has created to local and global communities as critical partners and stakeholders in the teaching and learning process? Does it capitalize on the potential benefits from and contributions to both the learners and the community?
- **Stakeholder Commitment**
Were all stakeholders involved in creating the vision? Is the vision understood and committed to by the full range of stakeholders? Are school, district, and community leaders formally committed to implementing the vision?
- **Communication**
Do the district and the schools effectively communicate the vision to students, staff, and the community?
- **Effective Teaching and Learning Practices**
Is the vision being translated into practice through learning environments characterized by powerful, research-based strategies that effectively use technologies?

Indicators

- **Learning Environment**
Do the school and classroom cultures engage and motivate students, honor individual differences, support innovation, and endeavor to meet the learning needs of all students?
- **Sound Base in Research and Best Practices**
Is technology use based on both high-impact, research-based practice and field-based best practices that are shown to add value to learning?
- **Alignment With the Vision**
Are content, instruction, vision, and assessment aligned to take full advantage of technology for learning?
- **Relevance**
Are students working on substantive projects that address meaningful issues and reach beyond the classroom to real-world practice?
- **Range of Use**
Do students have opportunities to use a range of technologies (e.g., learning, productivity, visualization, research, and communication tools) to support their learning?
- **Educator Proficiency With Effective Teaching and Learning Practices**
Are educators proficient in implementing, assessing, and supporting a variety of effective practices for teaching and learning?

Indicators

- **Cultivation of Digital-Age Skills and Processes**
Do educators understand the span of skills and processes that students need to succeed in the Digital Age? Do they have the strategies for implementing and assessing those skills?
 - **Planning and Design**
Are educators skilled in designing teaching strategies and learning environments to maximize the impact technology has on learning?
 - **Implementation of Technology-Supported Learning**
Are educators prepared to use a variety of technology-supported strategies for teaching and learning to meet the needs of students?
 - **Assessment Literacy**
Are educators prepared to apply technology in support of the assessment process? Are they prepared to apply new forms of assessment to the products of technology-supported learning?
 - **Professional Practice and Productivity**
Are educators prepared to use technology to increase professional productivity and gain enriched access to professional resources?
 - **Social, Ethical, and Legal Issues**
Are educators prepared to guide students as they deal with the social, ethical, and legal issues related to life in a technological world?
- **Digital-Age Equity**
Is the digital divide being addressed through resources and strategies that ensure that all students are engaging in an educational program aligned with the vision?

Indicators

- **Socioeconomic Equity**
Have the school and district ensured that socioeconomic status is not a barrier to readiness for the Digital Age?
 - **Gender Equity**
Have the school and district ensured that male and female students are equally well prepared to live and work in the Digital Age?
 - **Racial Equity**
Have the school and district ensured that students of all races are equally well prepared to live and work in the Digital Age?
 - **Special Needs Equity**
Are school and district staff familiar with assistive technologies? Are they prepared to identify and use these technologies where appropriate?
 - **Systemwide Equity**
Do all students have access to a range of high-quality technology uses within the curriculum, regardless of the school or classroom they attend?
- **Robust Access Anywhere, Anytime**
Do students and school staff have robust access to technology-anytime, anywhere-to support effective designs for teaching and learning?

Indicators

- **Technology Resources**
Are equipment and digital resources strategically deployed and sufficient to meet the needs of learners and educators?
 - **Connectivity**
Does the telecommunications infrastructure provide appropriate, robust communication from every learning setting? Does that access extend beyond the school day and outside the school facility?
 - **Technical Support**
Does the school or district provide adequate and timely support for hardware, software, and instructional application?
 - **Technology-Ready Facilities**
Do school facilities support connectivity and intensive technology use for learning? Does consideration of such use guide all renovation and new construction?
 - **Virtual Learning Opportunities**
Does the district address unmet learning needs of students by providing high-quality, technology-enriched learning opportunities and online access to digital content for students and teachers during and beyond the school day/environment?
 - **Administrative Processes and Operations**
Is technology used strategically to improve administrative processes and operations?
- **Systems and Leadership**
Has the education system reengineered itself into a high-performance learning organization?

Indicators

- **Systems Thinking and Process Reengineering**
Is the school or district transforming itself into a high-performance system driven by the digital-age learning needs of all students? Does the school or district have formal and informal processes to revise administrative policies and practices accordingly?
- **Digital-Age Standards and Assessments**
Do student standards reflect digital-age proficiencies? Are curricula, instruction, and assessments aligned with these standards?
- **Culture of Learning and Innovation**
Is innovation-with and without technology-supported, encouraged, and actively developed through policies and informal action? Do policymakers use funding, perks, waivers, and special opportunities to provide incentives for schools and educators to innovate?
- **Community Connections**
Do formal technology-related structures and processes engage parents, community members, school faculty, and learners in meaningful exchanges, interactions, and partnerships that advance the vision?
- **Administrator Proficiency**
Are administrators prepared to use technology effectively? Are they prepared to work with colleagues to guide their school system toward more effective uses of technology in teaching, learning, and managing?

- **Professional Development**
Do the school and the district provide comprehensive professional growth opportunities for teachers, administrators, and other staff that build their capacity to advance the vision? Is the effectiveness of professional development linked to student performance?
- **Data-Driven Decision Making and Accountability**
Has the school or district established the metrics and benchmarks for effective uses of technology at the student, educator, and systems levels? Does the school or district collect and analyze data to track progress and correlate findings? Is decision making at all levels informed and influenced by the results?
- **Comprehensive, Prioritized Funding**
Does the school or district address the full cost of technology as a regular part of district/school budgeting? Is funding prioritized to promote equity across and within schools to establish high-impact, student-centered uses of technology and to provide the support systems necessary to sustain them?