

Virtual School Accountability – A National Perspective

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Learning**

www.inacol.org



International Association for K-12 Online Learning (iNACOL)

- iNACOL is the premier K-12 nonprofit in online learning
- Provides leadership, advocacy, research, training, and networking with experts in K-12 online learning.
 - 4400+ members in K-12 online and blended learning in over 50 countries
 - Annual conference – iNACOL Blended and Online Learning Symposium: Orlando, FL in October 28-30, 2013
- “Ensure every student has access a world class education” regardless of geography, income or background.
- Next Generation Learning Challenges – Gates Foundation
- CompetencyWorks – Nellie Mae Education Foundation
- Our strategic areas of focus in online and blended learning:
 1. Policy
 2. Quality
 3. New Learning Models

International Perspective

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European Union

- EU:
 - EU E-Learning Action Plan
 - IB Diploma Programme Online (125 countries)
- UK: E-Learning Exports - 29 billion annually; deal with China
 - Education as an export



Turkey, the Middle East & Arab Spring

- Turkey: online courses
- Arab Bureau of Education for the Gulf States



India

- Size
 - 1 billion+, 70% rural population
 - Need 200,000 more schools
- Internet Accessibility
 - 2007-08 - 42 million users (3.7%)
- Online Learning
 - Universal access for K-12 in 10 yrs
 - Shortage of good teachers
 - *“Leverage teachers using technology to bring to scale”*
 - Educomp digitizing learning resources for K-12 Education



India announces \$35 tablet computer for rural poor

“Oct. 5, 2011 -

The \$35 basic touch screen tablet aimed at students can be used for functions like word processing, web browsing and video conferencing. Aakash, manufactured by DataWind, has a 7" Android 2.2 touch screen and a HD video coprocessor.

The Indian government intends to deliver 10 million tablets to students across India.” (AP Photo - Gurinder Osan) (Source: Associated Press)

“Datawind says it can make about 100,000 units a month at the moment, not nearly enough to meet India's hope of getting its 220 million children online.”



China

- China: 1.3 billion people
 - Digitized K-12 curriculum
 - Training Master Teachers to teach online
 - With online learning: increase educational opportunities to 100 million new students

The Futurist: Education 2011

China may be the first country to succeed in educating most of its population through the Internet.

- From 2003-2007, China spent about \$1 billion to implement online learning projects in the rural country-side.



“Web opens world for young Chinese . . .”

-Christian Science Monitor, May 14, 2007

- Beijing -- “Excited and emboldened by the wealth of information they find on the Internet, Chinese teens are breaking centuries of tradition to challenge their teachers and express their opinions in class. . . .”
- “Students at Tianjin’s No. 1 Middle School are encouraged to challenge their history texts.”
- “The Internet has given Chinese children wings,” says Sun Yun Xiao, vice president of the China Youth and Children’s Research Center.
- 137 million online in China at the end of 2006 (in 1999 there were just 4 million connections in China)
- 87% of urban youth in China use the Internet

Hong Kong

- In 2010, Hong Kong policy recommendation for digital learning that “de-bundled” textbooks and teaching materials to make more affordable and accessible to schools, and accelerated the development of an online repository of curriculum-based learning and teaching resources.
- Blended learning for Continuity of Learning



Singapore

- Singapore: 100% of Secondary schools use online learning
- All teachers trained to teach online
- Blended Learning Environments
- E-Learning Weeks



South Korea

- **South Korea**
 - National Virtual School
 - Switch to digital content from textbooks



South Korea E-Learning Survey 2012

- South Korean schools using e-learning:
 - 77% public schools use e-learning systems in official curricula
 - 86% public and private institutions combined in 2012
- The Ministry of Education plans to foster small and medium industry players through a support center that will assist the development of customized e-learning services.
- South Koreans ages 3+, 53% percent used e-learning services in 2012
- South Koreans ages 3+ using e-learning services through mobile devices: 30%

iNACOL International Survey Findings

- Almost 60 percent of the surveyed countries reported government funding for blended or online programs at the primary and secondary levels.
- Seventy-two percent of the surveyed countries reported that their online and blended classroom teachers participated in professional development for online teaching.
- Universities and colleges were the primary source of training for educators, followed by regional centers and local schools.

National Perspective

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U.S. Online Learning Facts

- K-12 online learning enrollments growing 30% annually
 - 50,000 in 2000; 500,000 enrollments in 2005; 1.8 million in 2010).
- 30 states allow 250 full-time online schools
 - 275,000 enrollments nationwide.
- 82% of school districts had one or more students in a fully-online or blended course
- More universities are offering K-12 courses online
 - Indiana U, Univ of Montana, Nebraska; Stanford, JHU, Northwestern programs for gifted
- 50% of employers use e-learning for training; need skills for working collaboratively in virtual teams

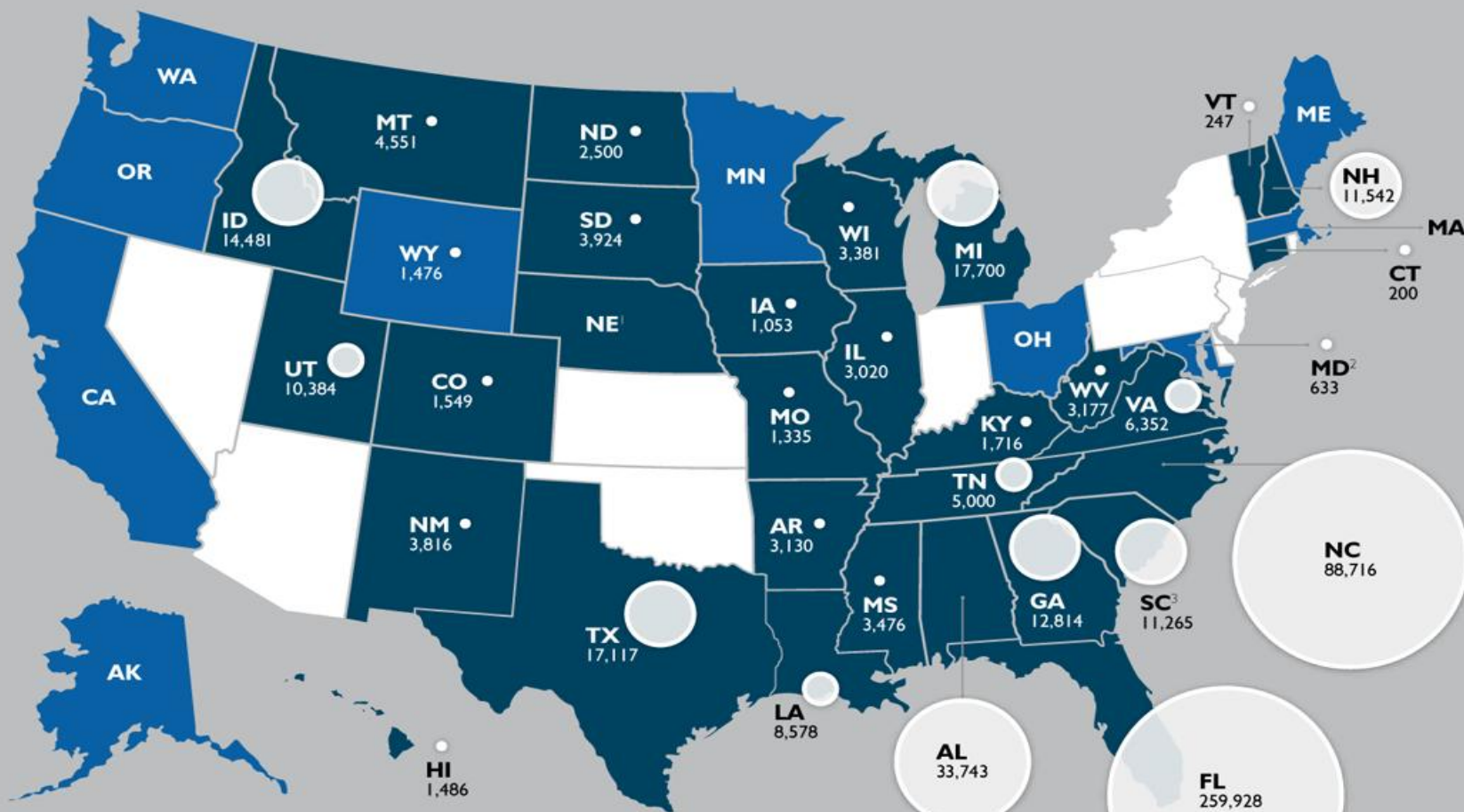
New Solutions through Online Learning

- 40% of US high schools do not offer AP courses
 - 75% of districts use online learning to offer Advanced Placement or college-level courses.
- Teacher Shortages
 - 40% of public school districts in America today say they need online learning resources because certified teachers are not available for traditional face-to-face instruction.
- More than 50% need online learning to reduce student scheduling conflicts to graduate on time.
- 60% of school districts say they need online learning for credit recovery.

2011

States with State Virtual Schools or State-led Online Initiatives

states with a state virtual school
 states with a state-led online initiative
 states with neither



Number of course enrollments

over 35,000

20,000 - 35,000

10,000 - 19,999

5,000 - 9,999

less than 5,000

Enrollment numbers and/or estimates are shown when available.

¹ NE state virtual school is new in 2011.

² MD enrollment estimate is from 2009-2010

³ In 2010 KP report we reported enrollment requests, not enrollments.

State Virtual Schools

Program Size and Ratio to State Population

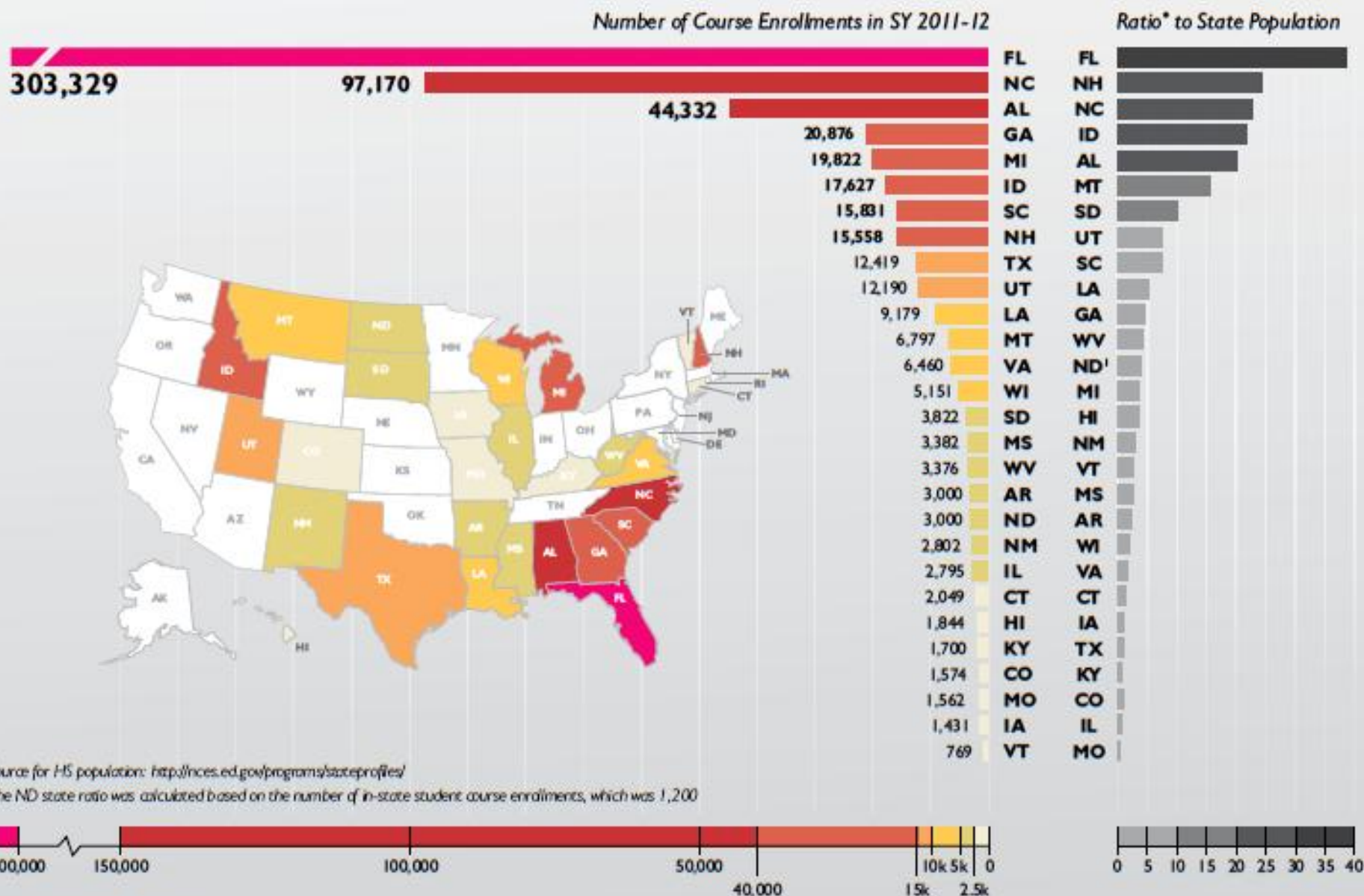


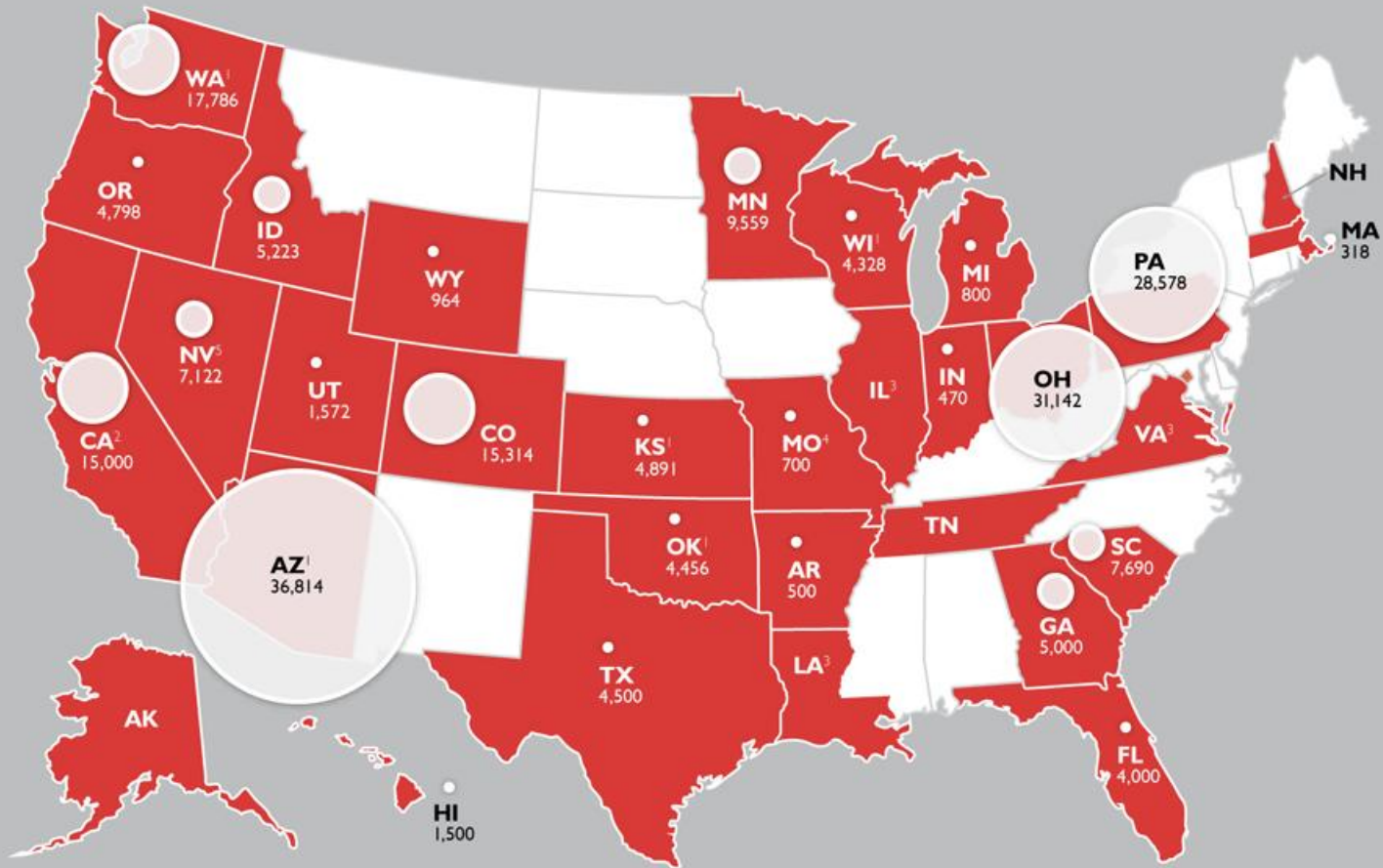
Figure 7: State virtual schools

2011

States with Multi-district Full-time Online Schools

■ states with a multi-district full-time online school

■ states without a multi-district full-time online school



Number of student enrollments

over 35,000

20,000 - 35,000

10,000 - 19,999

5,000 - 9,999

less than 5,000

Enrollment numbers and/or estimates are shown when available.

¹ AZ, KS, OK, WA, and WI are unique student counts of both full-time and supplemental students.

² CA is an estimate.

³ In IL, LA, and VA full-time schools are opening in 2011.

⁴ MO enrollment number is from MU Online High school only.

⁵ NV enrollment number does not include district programs not reporting.

Definitions: iNACOL Online Learning Definitions Project

Online learning – Education in which instruction and content are delivered primarily over the Internet.
(Watson & Kalmon, 2005)

Blended learning – When a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of *student control over time, place, path, and/or pace*; often used synonymously with Hybrid Learning. (Horn and Staker, 2011)

Under consideration . . .

- “Blended instruction” would be defined as instruction in which a student learns at least in part using the Internet or other computer-based method and in part at an on-site location with face-to-face instruction.
- A “public virtual school” would be defined as a school under the authority of the local school board where a student may receive all of his instruction electronically, using the Internet or other computer-based methods, with the exception of any required on-site instruction or blended instruction.

Equity: Providing Opportunities for All Students



Research on Online Learning

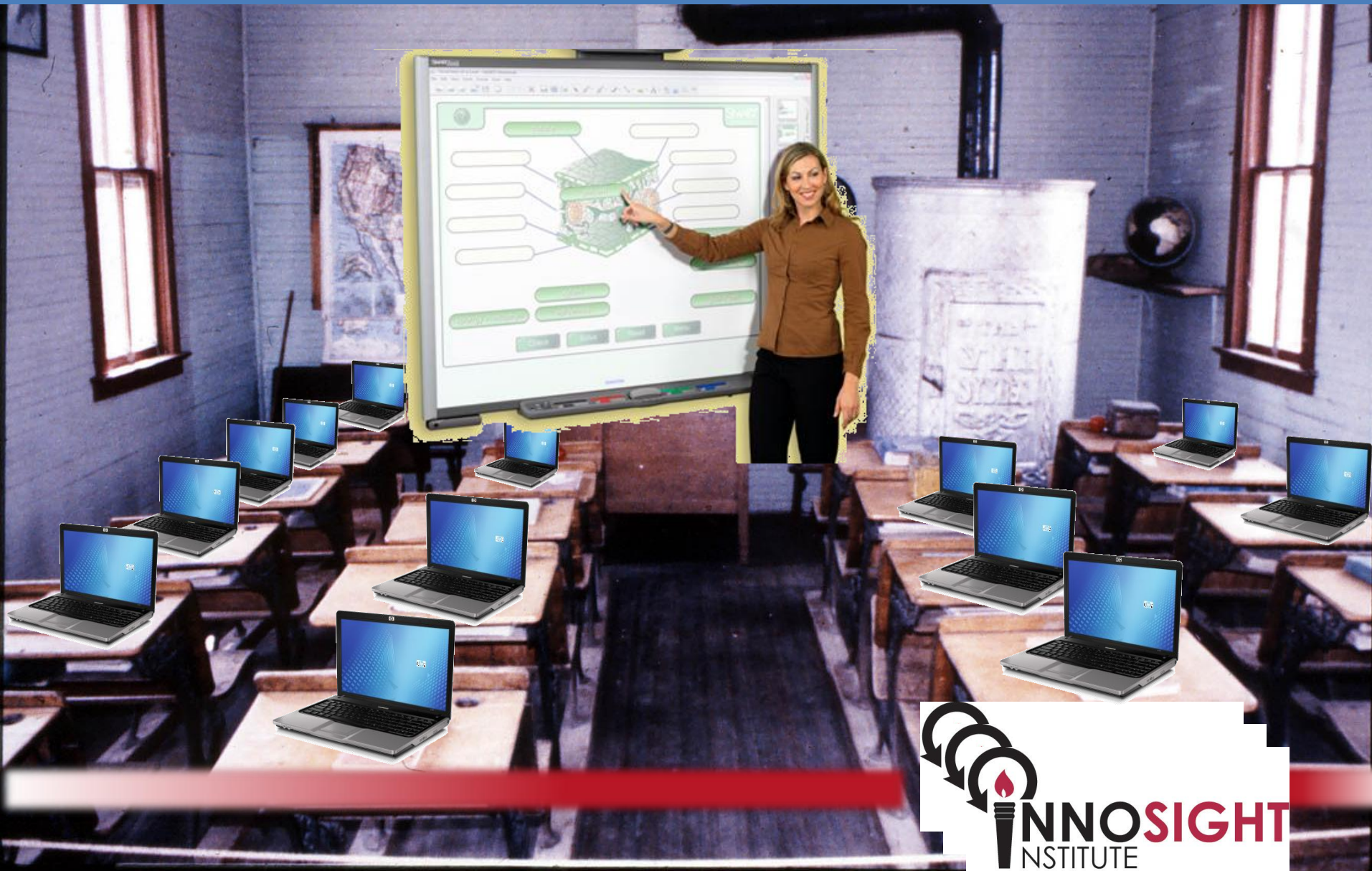
Benefits of taking a class online?

According to students:

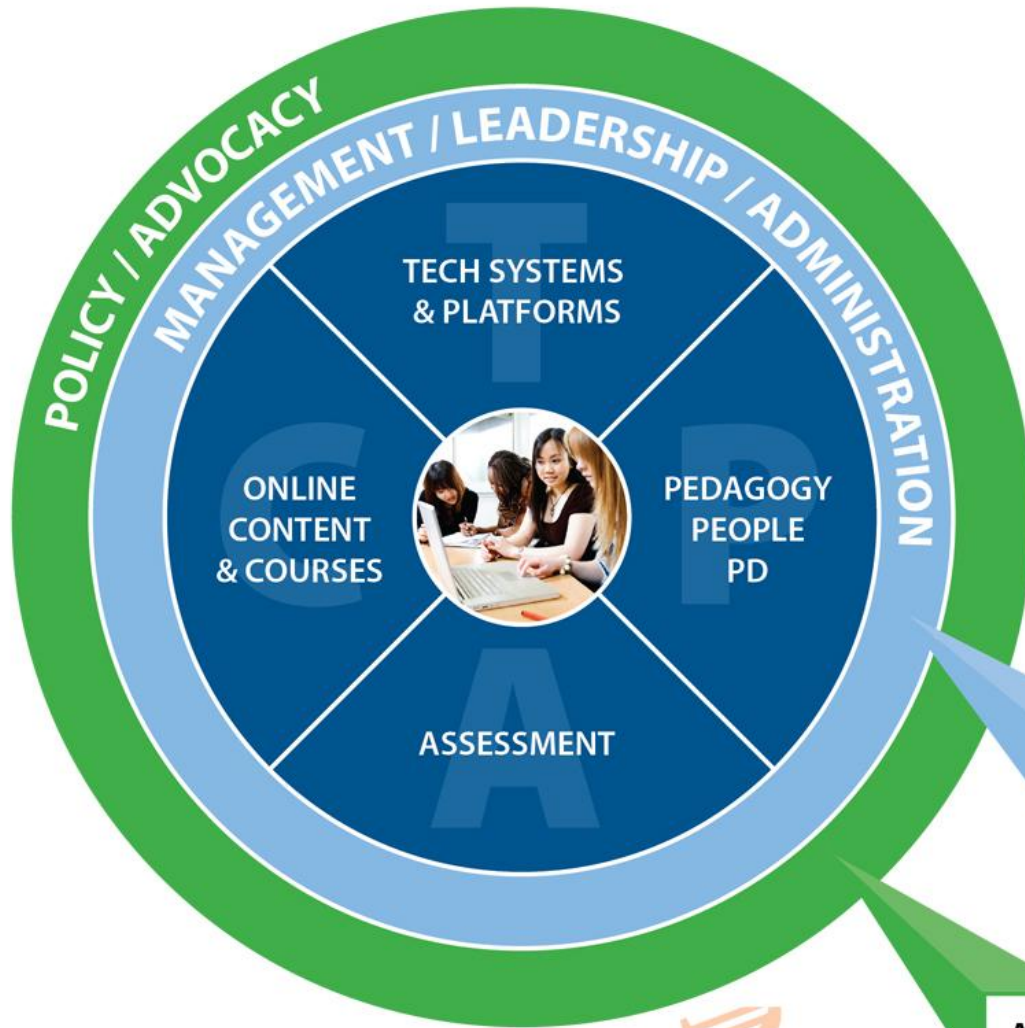
- 51% said it allows them to work at their own pace
- 49% to earn college credit
- 44% said it allows them to take a class not offered on campus
- 35% said it was to get extra help
- 19% said they took online courses to get more attention from teachers

(Project Tomorrow Survey, 2012)

What it is and is not...



New Models Using Online & Blended Learning



T TECHNOLOGY PLATFORMS

- Enterprise architecture
- Learning management system/virtual learning environment
- 1:1 computing
- Broadband internet infrastructure
- New SIS models for standards-based and competency-based approaches

P PEOPLE / PEDAGOGY / PD

- Teachers need new skills to teach online
- Administrators need new skills to manage online programs
- New Response to Intervention (RTI) models through blended
- Personalizing instruction allowing students to accelerate at their own pace

A

ASSESSMENT

- Online / adaptive
- Personalization engines
- Performance-based

C

ONLINE CONTENT

- Online courses
- Dual enrollment
- Credit recovery
- Common core curriculum

STUDENT SUPPORT SERVICES

- Online tutoring
- Technical support
- Registration
- Counseling

ADVOCACY / POLICY

Does every student have access to online learning?

- Policies and funding models
- Remove barriers that limit enrollment

NEXT GEN MODELS
Competency-based
learning pathways

Competency Education Requires New Student-Centered Learning Designs

- With student profiles mapping standards, competencies, skills and proficiency levels in the center, *and integrated with content systems assessment systems, learning management systems through an architecture*, an IT system can enable schools, districts and states to roll student-level data up to monitor progress and support state, district and school accountability functions.

New IT for Competency Education: 4 Basic Elements

1. Competency Education IT systems are designed with student profiles and standards-based, personalized learning plans at the center.
2. Rich data on student learning enables robust continuous improvement.
3. Student-centered systems require student-centered accountability systems focused on progress in learning.
4. IT enterprise architecture requires interoperability, accessibility and interfaces between LMS, SIS, CMS/SOLs.
 - Enables data to measure individual student learning, competency-based student profiles!

Online, Competency-based Education Requires Robust Data Systems

Competency Tracking and Reporting

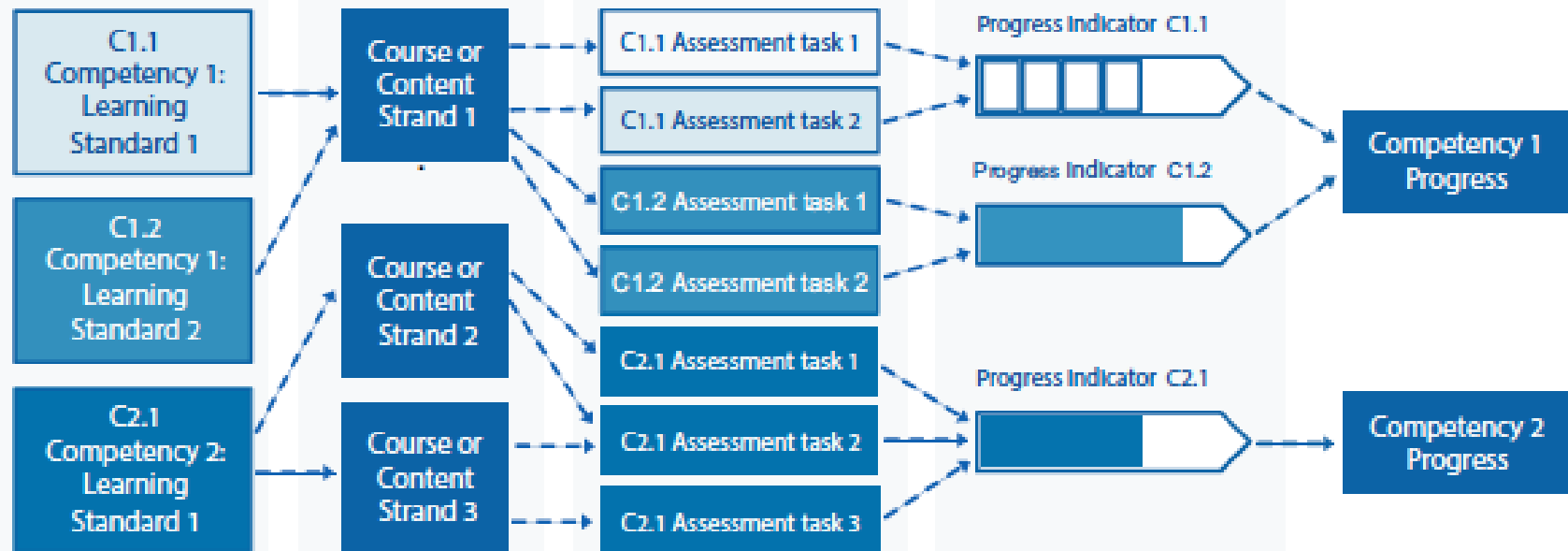
A competency may have one or more learning standards associated with it.

A competency may be associated with one or more courses or content strands.

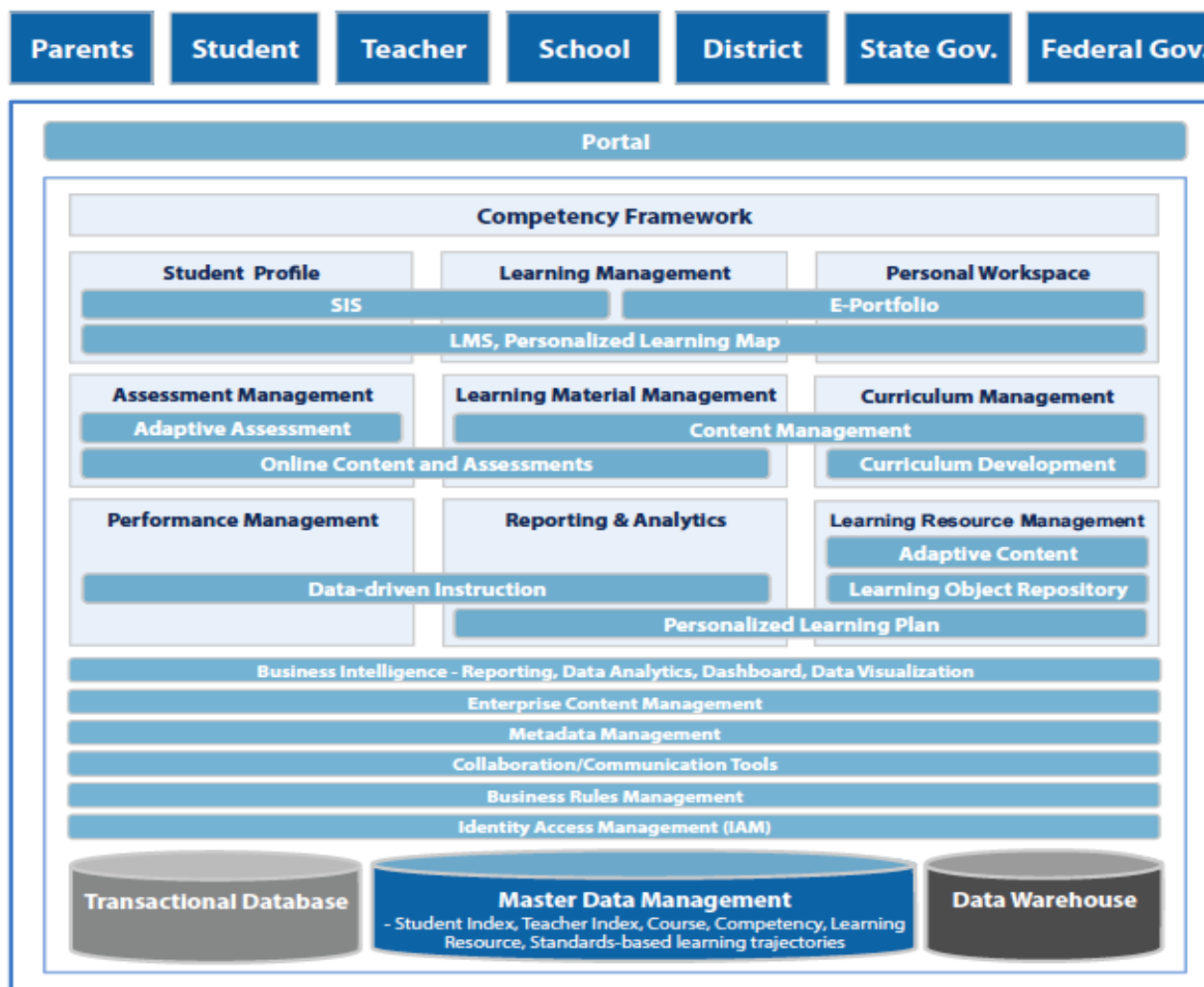
A competency may be assessed with one or more assessment tasks and are generally assessed with multiple tasks.

The results of the assessment tasks are rolled up into a learning standard progress indicator.

The results of the learning standard progress indicators are rolled up into a competency progress indicator.

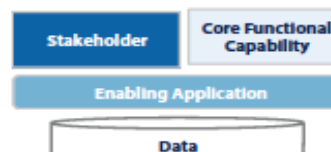


Competency-Based Education Conceptual Architecture



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Continuing Development and Evolution of Systems

- Standards and Interoperability
- Information Technology Standards for Competencies
- Learning Progressions and Adaptive Systems

TOWARDS ADAPTIVE E-LEARNING USING DECISION SUPPORT SYSTEMS

Towards Adaptive E-Learning using Decision Support Systems

<http://dx.doi.org/10.3991/ijet.v8iS1.2350>

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International Journal of Emerging Technologies in Learning (iJET)

<http://online-journals.org/i-jet/article/view/2350/2462>

TOWARDS ADAPTIVE E-LEARNING USING DECISION SUPPORT SYSTEMS

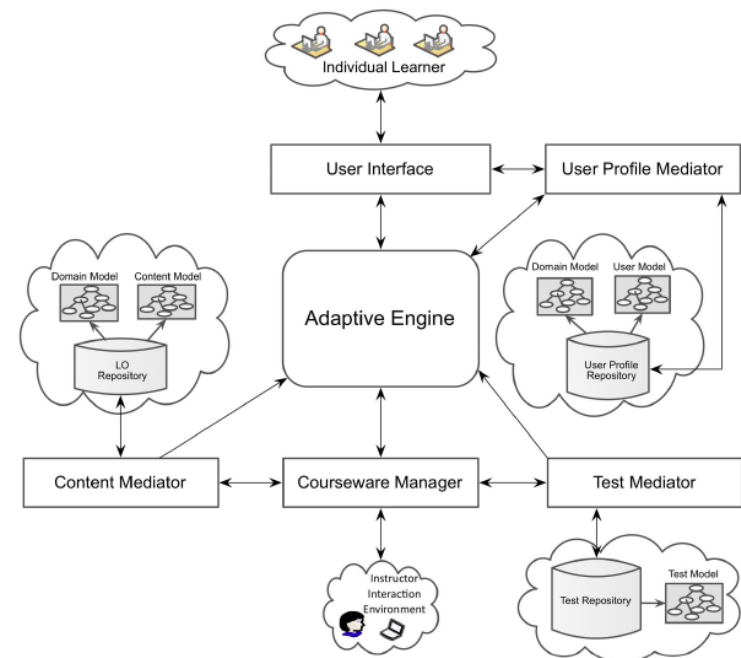


Figure 1. The Architecture of Adaptive E-learning with Decision Support System

POLICY IMPLICATIONS

Recommendations for Policy Frameworks

- Move to competency-based education
 - ID rule for mastery vs. seat-time: “A student may also achieve credits by demonstrating mastery of a subject’s state content standards as defined and approved by the local school district or LEA.”
- Accountability, Quality and Funding Models are Fundamental
 - Accountability with level playing field for all models
 - Funding models are student-centered

Full Time Online Programs

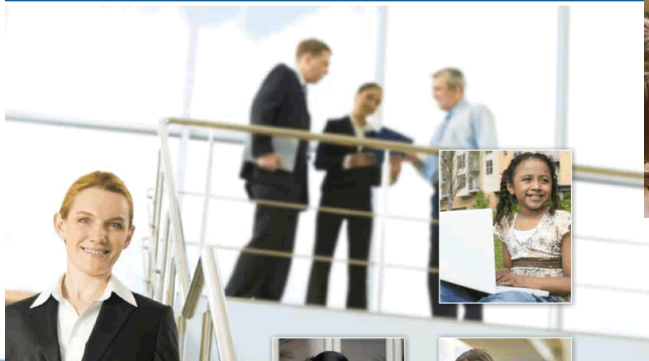
- Online school data should be disaggregated separately from other schools or districts to assure accurate data.
- Online schools must be provided student performance data and prior student records on academic history from the school the student previously attended.
- Data systems must be upgraded and better aligned to meet the challenge of collecting, reporting, and passing data between schools and the state
- Student fidelity toward academic goals and reasons for mobility, must be addressed in data systems and accountability ratings

Recommendations for Policy and State Role

- Ensure digital content is aligned to state academic standards
 - Review content for alignment with world-class standards
- Evaluate what works
 - Measure performance on outcomes, not inputs fixed in time
- Support leadership and professional development
- Use research-based definitions of online and blended learning

iNACOL National Quality Standards

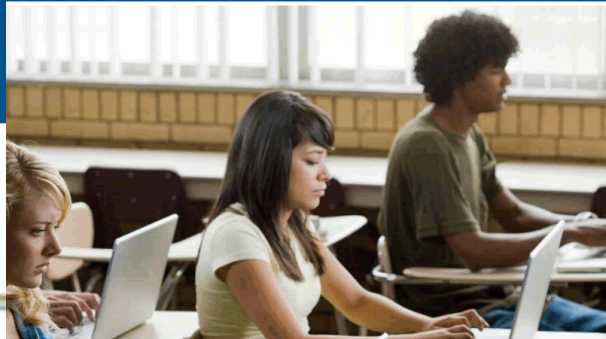
National Standards for Quality
Online Programs



October 2011

VERSION 2

National Standards for
Quality Online Courses



VERSION 2

National Standards for
Quality Online Teaching



5 Performance Metrics: Online Schools Quality Assurance Encouraged to Collect Transparent Data

- Baseline Proficiency (entry to program)
- Individual Student Growth (gains in learning standards)
- Graduation Rate
- College and Career Readiness
- Closing the Achievement Gap

SUMMARY RECOMMENDATIONS

Full Time Online Schools and Programs: Setting Policy

- *Use definitions that are research-based*
- *Provide alternatives to seat-time input measures for online learning; enable students to demonstrate mastery for earning credits*
- *Individual student performance should be measured and reported transparently based on standards.*
 - Performance metrics of student outcomes should be collected
 - Proficiency
 - Growth
 - Graduation Rate
 - College and Career Readiness
 - Closing the Achievement Gap
 - Growth models should be based on the growth of individual students over time, not on cohorts.
 - Untested subjects and grade levels must be assessed with validating assessments that can measure both proficiency and growth.

Resources & Reports

- *www.inacol.org*
- *iNACOL Online Learning Definitions Project*
- *Measuring Quality From Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools*
 - By Patrick, Wicks, Edwards, Watson (October 2012)
- Keeping Pace with K-12 Online Learning: A Review of Policy and Practice
 - <http://kpk12.com/cms/wp-content/uploads/KeepingPace2012.pdf>

Thank you!

Questions & Answers

Discussion

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