The Role of Federal Leadership in Transitioning to Competency-based Education Systems

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- CompetencyWorks
- Next Generation Learning Challenges

iNACOL

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Competency Education: Working Definition

1. Students advance upon mastery.

2. Competencies include explicit, measurable, transferable learning objectives that empower students.

3. Assessment is meaningful and a positive learning experience for students.

4. Students receive timely, differentiated support based on their individual learning needs.

5. Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions

What It Looks Like

- Every student with a personalized learning plan or "map"
  - Competencies for each level
  - Academic and complex skills
  - Rubrics to help teachers/students understand what demonstrating proficiency looks like
- Students know their targets; collaborate w/each other
- Students demonstrating their knowledge through "performance"
- Data systems to support teachers and students clearly indicating level of progress on each standard (to monitor student progress) moving through learning progressions
- Adults shifting roles
  - Data-driven
  - Personalization, grouping, teacher specialization
- Classroom, online, expanded learning opportunities
  - Anytime, every where learning
  - After school, museum, NASA, formal & informal learning
  - Online and blended learning

Quality and Quality Assurance

- Elements of Quality and Quality Assurance
  - Protecting High Levels of Proficiency – Shared understanding of proficiency includes: nature of instruction, nature of assessment, and how it is demonstrated
  - Student-Level Proficiency Data – every day
  - Personalized Learning Plan – understanding a student's trajectory and continuum of growth
  - Pacing Matters – Time-bound targets; within a range of "teacher pace"
  - Products of Student Work - e–portfolios and samples at high levels of proficiency

Introducing Competency Education

- There is a growing chorus of voices throughout the country calling for the redesign of public education around a student-centered, customized learning approach that will better engage, motivate, and prepare all students to be career and college ready.
  - Today's industrial, batch model can't meet needs of our students to be prepared for society's future needs and world-class skills
  - Educational equity is not simply about equal access and inputs, but also ensuring that students' educational path, curriculum, instruction, and schedule be personalized to meet their unique needs, inside and outside of school.

NATIONAL OVERVIEW

National Initiatives

- Smarter Balanced Assessment Consortium Task Force

- Achieve American Diploma Project Work Group

- Federal Race to the Top – District Competition

- National Science Fdn – 8th Grade Algebra Evaluation

- Growing as a Policy Agenda for Stakeholders - iNACOL

- CCSSO Innovation Lab Network

- *Emerging*

  - Competency Education in Higher Education

  - Expanded Learning Opportunities

  - Badges

States Leading the Way

- 36 States have policies for competency education

Leaders:

- New Hampshire and Maine
  - Expectation of competency-based diploma

- Oregon
  - Enabling policy and investment in building effective practice

- Ohio
  - Districts must offer credit flexibility

- CCSSO Innovation Lab Network States
  - California, Iowa, Kentucky, Maine, New Hampshire, New York, Ohio, Oregon, West Virginia, Wisconsin

Advanced States
Those states with clear policies that are moving towards proficiency-based; more than just an option.

Developing States
Those states with pilots of competency education, credit flexibility policies, or advanced next gen policies for equivalents to seat-time.

Emerging States
Those states with waivers, task forces.

ILN States
Since its inception, the Innovation Lab Network (ILN) engaged schools, districts, and state education agencies working to identify through local efforts new designs for public education that empower each student to thrive as a productive learner, worker, and citizen. The state's responsibility is to establish conditions in which innovation can flourish and to develop capacity to sustain and scale what works through policy. The Council of Chief State School Officers (CCSSO) facilitates this network of states to support programmatic, policy, and structure design work within each participating states and across the network.

No Policies in Competency Education
States with seat-time and no competency education policies.

Personalization & Technology

- Personalized learning requires not only a shift in the design of schooling, but also a leveraging of modern technologies.

- Personalization cannot take place at scale without technology.

- Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources, and learning opportunities needed to meet students' needs anywhere at anytime, but which are not all available within the four walls of the traditional classroom.

Innovation and implementation

- US – K-12 education among lowest achievement internationally; however, other countries visit US to see innovative education programs
- Next Generation Learning Challenges
  - Blended, mastery-based personalized learning models using advanced technologies can have dramatically improved results on student achievement

GLOBAL PERSPECTIVE

International Performance

- Globally – don't fund schools based on # of minutes in a seat

- Performance-based assessments of student demonstrating competencies (academic and complex skills); gateway assessments

- EU Competency Frameworks for Lifelong Learning

- What is #1 Policy Issue in United States?

Singapore and Hong Kong

- Singapore: 100% of Secondary schools use online learning

- All teachers trained to teach online

- Blended Learning Environments

- E-Learning Weeks

- 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.

India announces $35 tablet computer for rural poor

"An Indian student poses with tablet computer she received during its launch in New Delhi, India, Wednesday, 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."
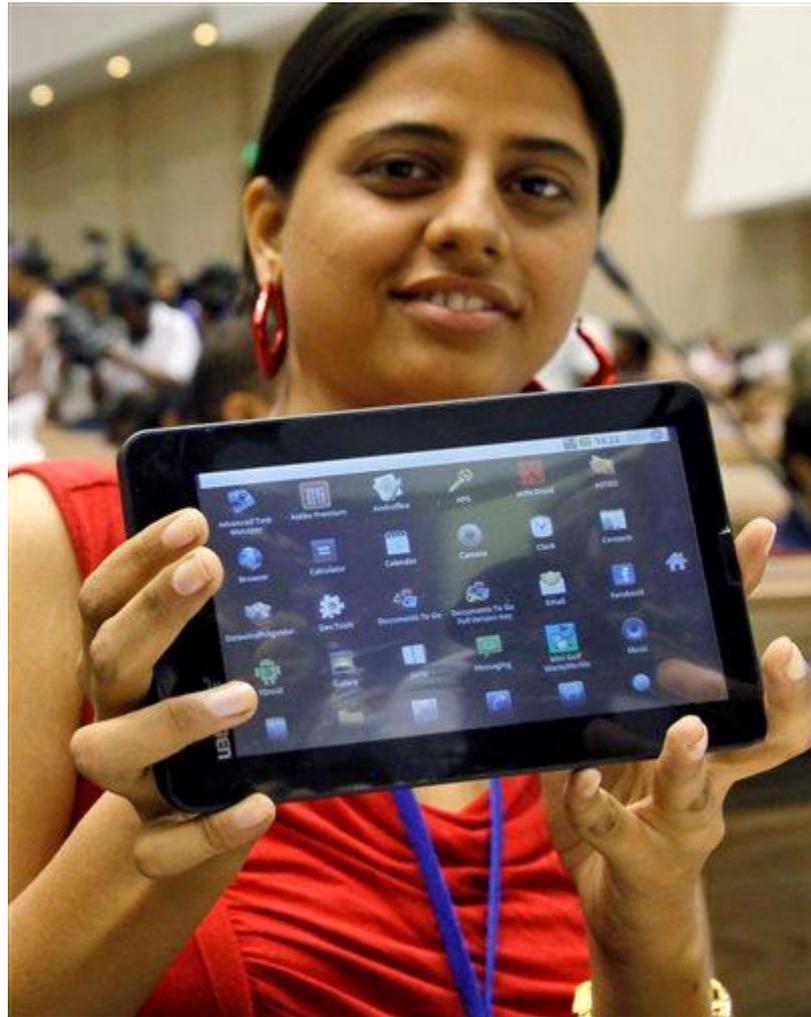
Research

"Learning rate does appear to be alterable, and [competency-based] mastery learning procedures may be one way slow learners can help to increase their learning rate." – Guskey and Gates

Systems of Assessments

- Validation
- Assessment should be meaningful to the student's learning process
  - Entry, feedback loops, continuous improvement
- Multiple measures, multiple points in the year
  - Students should have the timely opportunity to take summative assessments that are gateways to more advanced courses and then move on when ready at multiple points in the year.

Mixed Signals & Barriers: Federal Policy and Competency Education

- ESEA reinforces time-based, factory traditional education model.

- Teacher effectiveness – assumptions of one student with one teacher in one subject or classroom.

- Federal programs continue to rely on age-based cohorts and averaged grading, seat-time definitions of Carnegie unit.

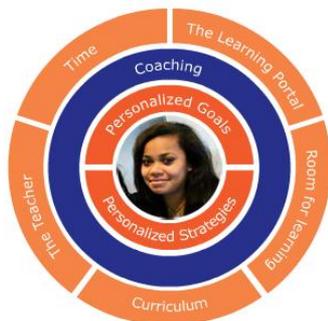# Competency Education Requires New Data and Accountability Solutions

1. Student learning isn't always linear.
2. SIS and IT systems are designed for accountability compliance. Compliance is *school*-based, not *student learning*-based.
3. School factory models of time, bell schedules and school calendars (and batching of students by birthday) constrains innovation and responsiveness.
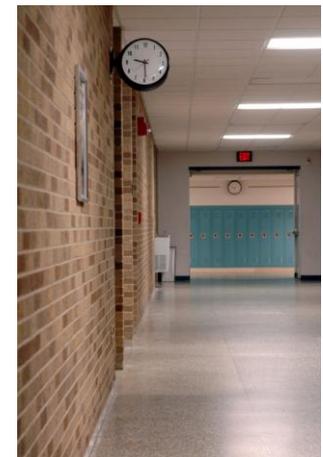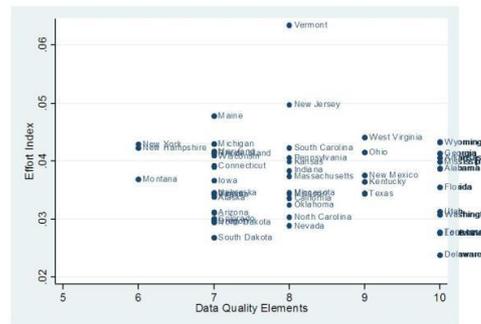
New IT for Competency Education:
Basic Elements

1. Competency Education IT systems are designed with student profiles and standards-based, learning progressions, 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.

Enables data to measure individual student learning, competency-based student profiles!

Competency Education Requires New Student-Centered Learning Designs

- Competency education requires IT systems to be organized around student-centered learning, competency attainment, multiple pathways, and systems of assessments.

- With student profiles of standards, competencies, skills and proficiency levels in the center, an IT system can enable schools, districts and states to roll student-level data up to monitor progress and fulfill state, district and school accountability functions.

School and District Innovations

- Schools
  - Schools for the Future, Highland Tech High, Carpe Diem
- Online Schools
  - Florida Virtual , NH Virtual Learning Academy
- Over-age, Under-credited Youth
  - Boston Day and Evening Academy/Diploma Plus
- Districts:
  - Chugach, AK
  - Adams 50, Westminster, CO
  - Lindsay, CA
  - Maine Cohort for Customized Learning
  - New Hampshire

Competency-based learning

Performance or competency
based learning is fundamental
to personalizing learning at
scale
and
It challenges almost all of our
assumptions about the present
system

FEDERAL ISSUES

Conclusion

Federal Government: Recommendations Create Conditions Necessary for Success

1) Re-design Accountability System Framework
   - What is a student-centered learning design?
     - Students advance upon mastery & provide rich proficiency data
     - 'Summative' assessments to validate data; gateways throughout year

2) Assessments Framework
   - How to assure world-class quality?
     - Metrics on individual student growth along standards/progressions (gain per unit of time)
     - Balanced systems of assessments
     - Invest in performance-based assessments
     - Multiple measures at multiple points in the year

3) Create Innovation Space
   - Remove time-based constraints in federal policy
   - Pilots, Proof Points
   - Evaluation, Research & Development

Federal Government: Recommendations to Create Conditions Necessary for Success

4) Rethink Human Capital
- Educator support systems and changing roles of educators for 21st century student-centered models
  - Educator Supports & Professional Development

5) Improve Technology and Broadband Infrastructure
- IT and SIS for competency education
- Online gateway assessments will require IT within schools to be upgraded significantly between 2013 . . . And 2014-2015.

Questions and Comments

Reflection

FOR MORE INFORMATION

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