U.S. PIAAC RESULTS:
PROBLEM SOLVING IN TECHNOLOGY-RICH ENVIRONMENTS

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DEFINITIONS OF PROBLEM SOLVING IN TECHNOLOGY-RICH ENVIRONMENTS

- "the capacity to access, interpret and analyse information found, transformed and communicated in digital environments"

- "The assessment focuses on the abilities to solve problems for personal, work and civic purposes by setting up appropriate goals and plans, and accessing and making use of information through computers and computer networks"

PIAAC information in this presentation based on OECD publications *"Skilled for Life? Key Findings from the Survey of Adult Skills,"* and the "U.S. Country Note" U.S. Country Note

DEFINITIONS OF PROBLEM SOLVING IN TECHNOLOGY-RICH ENVIRONMENTS

- "the ability to use digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks"

    - Get information (digitally)

    - Interpret, analyse and evaluate it

    - Communicate your analysis (digitally)

    - Do this in the context of perfoming tasks and solving problems in work, family, and community contexts

THE STATE OF DIGITAL LITERACY IN THE U.S.

Although U.S. PIAAC results for Problem Solving in Technology-Rich Environments are not as dismal as literacy and numeracy, given the technology resources in the U.S. why aren't the results better?

THE STATE OF DIGITAL LITERACY IN THE U.S.

- Poor access to computers by low-income, low-skilled, older, African American, and linguistic minority adults (and adult education teachers)

  - However, access has been increasing through the Broadband Technology Opportunity Program, computer and internet subsidies for low-income families, and through increased use of smart phones by linguistic minorities, African Americans

- Declining resources for adult literacy and job training

THE STATE OF DIGITAL LITERACY IN THE U.S.

- Low percentage (3-10%) of adults in need of basic skills – including digital literacy – getting services

- A technology-using culture that emphasizes social media and shopping but not keyboarding skills, digital literacy, online information searching, problem solving using technology, and online learning skills.

- Adult and K-12 education that has focused on standardized testing but not necessarily on problem-solving (whether using technology or not)

PROMISING NEW DEVELOPMENTS

- *Northstar Digital Literacy Assessment*
  http://www.digitalliteracyassessment.org/index.php
  a free online problem-based digital literacy assessment developed in Minnesota by a partnership of libraries, workforce development and adult education, and now in eight states, including Minnesota, where it is used across the state by a multitude of agencies.

PROMISING NEW DEVELOPMENTS

- *Learner Web* http://learnerweb.org
an adult learner support system developed by Portland State University, and used in ten states. Learner Web offers a broad range of online Learning Plans (self-paced curriculum) for adults interested in basic skills, workforce development, citizenship, preparation for post-secondary education and more. Learner Web's digital Literacy Learning Plans are aligned with the Northstar Digital Literacy Assessment.

PROMISING NEW DEVELOPMENTS

- The U.S. *National Education Technology Plan (NETP)*, and in particular, *Connected Teaching and Personalized Learning: Implications of the National Education Technology Plan (NETP) for Adult Education*, a report that discusses how the technology plan may apply to adult learners.

http://lincs.ed.gov/publications/pdf/ImplicationsNTEP_AdultEd.pdf

PROMISING NEW DEVELOPMENTS

Changes in High School Equivalency Exams, some of which (e.g. GED® tests) will require digital literacy skills in 2014. This has significantly increased adult educators' awareness of the importance of skills like:

- Keyboarding (i.e. typing) for extended responses

- Computer screen navigation

- Using onscreen calculators efficiently

- Analysing written passages and writing a clear and persuasive argument in response

- Overall computer competency and comfort.

HOW HAS INFORMATION TECHNOLOGY (I.T.) EVOLVED OVER THE YEARS?

- Information Technology (IT)

- Information and Communications Technology (ICT)

HOW HAS I.T. EVOLVED OVER THE YEARS?

- Information, Communications…. Shopping and Entertainment Technology (ICSET?)

- Information, Communications, Shopping, Entertainment….. and Learning Technology (ICSELT?)

INFORMATION, COMMUNICATIONS, SHOPPING, ENTERTAINMENT AND **LEARNING** TECHNOLOGY

- Online/distance and blended learning

- YouTube learning

- Massive Open Online Courses (MOOCs)

- Just-in-time learning, by smart phone or electronic tablet in the World of Work