Building off What We Know: Improving adults’ basic skills through instruction

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The State of Adult Skills in America
Many people think they know who needs adult education services.

Most of them don’t know who actually needs assistance.
Results from the PIAAC (OECD Survey of Adult Skills)

Assessed adults 16 to 65 years old in

- Literacy
- Numeracy
- Problem-solving in Technology-Rich Environments
Survey says...

Approximately 60% are below average.
52% are below average

Level 3 was considered “average”

Levels 4 & 5 were combined
About 36 million U.S. adults have only basic vocabulary knowledge and struggle to draw even low-level inferences or do more than summarize or find main ideas in short texts.

http://www.digitalpromise.org/blog/entry/americas-adult-skills-gap
Numeracy

64% are below average

- 10%
- 20%
- 34%
- 27%
- 9%
Nearly 1 in 3 Have Less-Than-Basic Numeracy Skills

About 58 million U.S. adults have difficulty solving anything beyond simple mathematical operations involving counting, sorting, and basic arithmetic.

http://www.digitalpromise.org/blog/entry/americas-adult-skills-gap
Problem-Solving in Technology-Rich Environments

61% are below average

Level 2 was considered “average”
Problem-Solving in Technology Rich Environments

3 out of 10 adults have difficulty sorting e-mails into folders.
• Nearly two-thirds are employed.
• Nearly two-thirds have at least a high school education.
• Most are American-born.

Source: OECD, Time for the U.S. to Reskill?
Each age group performed similarly (i.e., the young were just as low-skilled as the old).
So basically, many American adults could benefit from building their basic skills.

But, sadly, most of them don’t have programs or instructors to help them.
Teaching Adults: Theory and Research
✓ Are independent and self-directed learners
✓ Have a rich life experiences to draw upon
✓ Want to learn immediately relevant things
✓ Want applicable knowledge
✓ Need the relevance to be apparent
✓ Have a wide array of internal incentives

Malcolm Knowles’s Theory of Andragogy
Why Adults Learn (Lieb, 1991)

Social relationships (to make friends)
External expectations (to comply)
Social welfare (to improve the community)
Personal advancement (to improve status)
Escape/Stimulation (to avoid boredom)
Cognitive interest (to satisfy curiosity)
Strategies that Seem to Help All Learners

• **Interleaving and Delay:** Students learn best when they receive variety and take breaks.

Cheap/free research-based strategies to integrate!
Strategies that Seem to Help All Learners

- **Interleaving and Delay**

- **Explanatory Questioning:** When students actively ask questions, they think more deeply.

Cheap/free research-based strategies to integrate!
Strategies that Seem to Help All Learners

- Interleaving and Delay
- Explanatory Questioning

- **Frequent Quizzing:** Low-stake quizzes and opportunities to make mistakes allow for deeper learning.

Cheap/free research-based strategies to integrate!
Strategies that Seem to Help All Learners

• Interleaving and Delay
• Explanatory Questioning
• Frequent Quizzing

• Address beliefs, attributions, and mindsets: This helps students believe that learning is possible and that their effort will pay off.

Cheap/free research-based strategies to integrate!
What are education providers doing?

What We Know about Instruction: Improving Delivery
What Should Learning Look Like?

✓ Active
✓ Deep
✓ Social
And What Should Instruction Be?

- Personalized
- Contextualized
- Trial and error
- Practice
EDUCATION FOR LIFE AND WORK
Guide for Practitioners

MOTIVATION, ENGAGEMENT, AND STUDENT VOICE

Using Technology to Support At-Risk Students’ Learning

Supporting LEARNING and MOTIVATION

Fueling the Race to Postsecondary Success:
A 20-Institution Study of Prior Learning Assessment and Adult Student Outcomes
Executive Summary
### The Spectrum of Student Voice Oriented Activity

<table>
<thead>
<tr>
<th>Expression</th>
<th>Consultation</th>
<th>Participation</th>
<th>Partnership</th>
<th>Activism</th>
<th>Leadership</th>
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</thead>
<tbody>
<tr>
<td>Volunteering opinions, creating art, celebrating, complaining, praising, objecting</td>
<td>Being asked for their opinion, providing feedback, serving on a focus group, completing a survey</td>
<td>Attending meetings or events in which decisions are made, frequent inclusion when issues are framed and actions planned</td>
<td>Formalized role in decision making, standard operations require (not just invite) student involvement, adults are trained in how to work collaboratively with youth partners</td>
<td>Identifying problems, generating solutions, organizing responses, agitating and/or educating for change both in and outside of school contexts</td>
<td>(Co-)Planning, making decisions and accepting significant responsibility for outcomes, (co-) guiding group processes, (co-) conducting activities</td>
</tr>
</tbody>
</table>

*Most student voice activity in schools/classrooms resides at this end of the spectrum.*

The need for adults to share authority, demonstrate trust, protect against co-optation, learn from students, and handle disagreement increases from left to right. Students' influence, responsibility, and decision-making roles increase from left to right.
Roles Outside the Classroom

Just as important as the classroom experience are the educational experiences students can have while studying and working outside of it.

And these experiences require technology and access.
Importance of 1-to-1 Computing

The Problem

The Internet has transformed our world, yet 1 in 4 households are without home access.

We’re working to eliminate the digital divide by making affordable Internet, low-cost computers, and free digital literacy courses available to all unconnected U.S. residents.

Learn about EveryoneOn
Resources:

- **Fueling the Race to Postsecondary Success**, Council of Adult and Experiential Learning (2010)
- **Improving Adult Literacy Instruction: Supporting Learning and Motivation**, National Academies Press (2012)
- **Skills and Trajectories of Developmental Education Learners**, Community College Review Special Issue (April 2013)
- **Using Technology to Support At-Risk Students’ Learning**, SCOPE and Alliance for Excellent Education (2014)

Citations for the Cognitive Science and Psychology Research to Support Instruction: