

Problem Solving in Technology Rich Environments

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What is PIAAC and PS-TRE ?

PS-TRE ? What's the Problem ?

What's PS-TRE to you and LBS ?

PS-TRE and OALCF Instruction

PS-TRE and OALCF Assessment

Learner Gains: It's not that ESEE



What is PIAAC and PS-TRE ?

PIAAC

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Programme for the
International Assessment of Adult
Competencies

PS-TRE

=

Problem Solving in Technology Rich
Environments



1994

IALS



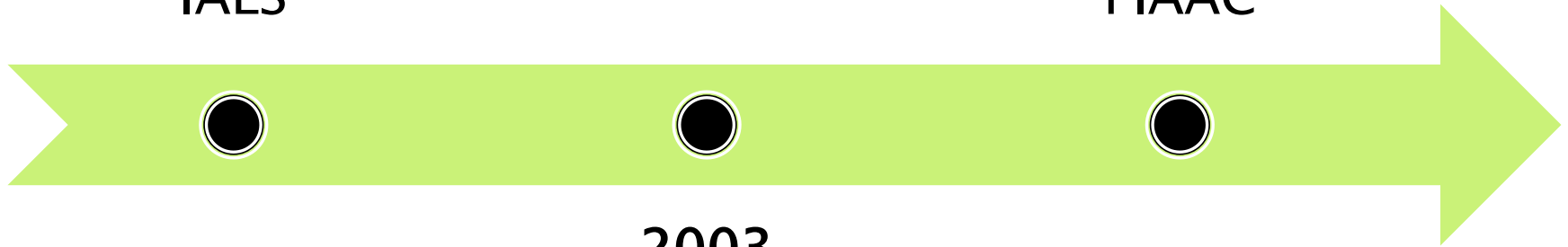
2011

PIAAC



2003

IALSS



Problem Solving in Technology Rich Environments (PS-TRE)

- ▶ Boarder concept of literacy including
 - digital technology
 - communication tools
 - networksto acquire and evaluate information, communicate with others, and perform practical tasks
- ▶ Intersection between computer literacy skills and the cognitive skills required to solve problems

Problem Solving in Technology Rich Environments (PS-TRE)

	Tech Features	Task Features	Cognitive Processes
Level 1 (basic)	<ul style="list-style-type: none"> • Generic application • Little or no navigation • Information directly available 	<ul style="list-style-type: none"> • Few steps • Single operator 	<ul style="list-style-type: none"> • Predefined goal • No impasses
Level 2 (intermediate)	<ul style="list-style-type: none"> • Generic & novel applications • Some navigation • Additional tools to facilitate navigation 	<ul style="list-style-type: none"> • Multiple steps • Multiple operators 	<ul style="list-style-type: none"> • Goal not defined • Some impasses • Evaluation, integration, and transformation of information
Level 3 (advanced)	<ul style="list-style-type: none"> • Generic & novel applications • More navigation • Tools required to efficiently solve problems 	<ul style="list-style-type: none"> • Multiple steps • Multiple operators 	<ul style="list-style-type: none"> • Defined goal and criteria • Frequent impasses • Evaluate relevance and reliability

Adapted from “Innovations in PIAAC: How technology and methodology differentiates PIAAC” ETS

Problem Solving in Technology Rich Environments (PS-TRE)

- ▶ Using computer tools

- keyboards and mice
- file management tools
- software applications
- graphic interfaces

to assess the capacity of adults to access, process, evaluate and analyze information effectively

- ▶ Paper-based survey assessing literacy and numeracy for survey respondents whose technology skills were too basic

PS-TRE ? What's the Problem ?

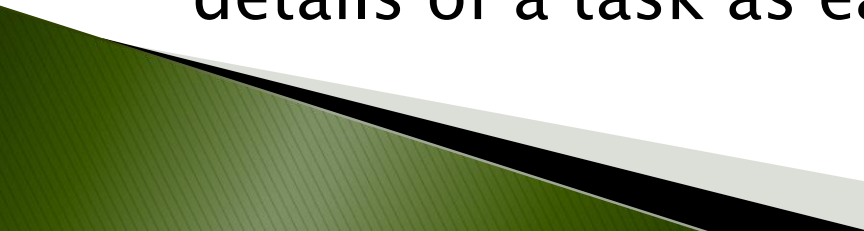
OECD thematic report “Adults, Computers and Problem Solving: What's the Problem?”

- ▶ Proficiency in PS-TRE is important for work
- ▶ Many adults still have little or no experience with computers

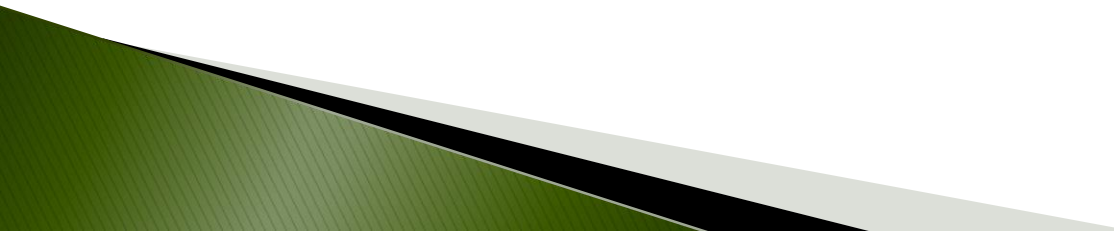
Adult education programs should aim to help learners develop technology skills



PS-TRE ? What's the Problem ?

- ▶ Managing information and solving problems using technology has become more crucial due to more non-routine tasks
 - ▶ More adults use technology for everyday tasks and offline practices are disappearing
 - ▶ For example, job openings & applications, and public services are often only online
 - ▶ User of non-tech methods cannot focus on the details of a task as easily online
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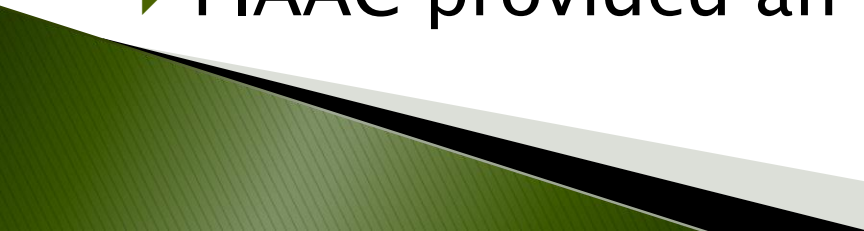
What's PS-TRE to you and LBS ?

- ▶ Problem solving and communication is linked with technology-rich environments
 - ▶ Digital technology needs to be integrated across the OALCF Competencies
 - ▶ Need for more research and evidence of instructional practices using technology
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PS–TRE and OALCF Instruction

- ▶ ESO developed sample tasks to illustrate how to integrate PS–TRE elements
 - Job Search, Finding Directions, and Inventory
 - Includes references to the OALCF Competencies, additional instructional support, sample answers
- ▶ AlphaPlus developed sample tasks packages using a similar methodology
 - Work, Manage Money, Manage Health, Manage Learning, Share and Collaborate
 - Includes references to OALCF Competencies, additional instructional supports, activity sheets

PS-TRE and OALCF Assessment

- ▶ PIAAC employed adaptive testing and so will the future learner gains tool (e.g. ESEE)
 - ▶ ESEE is the Learner Gains tool currently under development and testing for LBS
 - ▶ Learner Gains results calculated along the IALS/PIAAC 500 point scale (Intake and Exit)
 - ▶ PIAAC provided an exemption for tech skills
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Learner Gains: It's not that ESEE

- ▶ ESEE or not – Learner Gains is an online test
- ▶ LG will be mandatory and need to be secure
- ▶ Learners need basic technology skills like
 - Point and click with a mouse to navigate between web pages, select answers, and open text links
 - Scroll up and down a screen to see a web page
 - Open and close pop-up windows with additional information or video instructions (e.g. in ASL)

Thank you

- ▶ Links to the reports and resources mentioned will be provided in follow-up email
- ▶ For any questions or comments contact

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