

Intelligent Tutoring Increases Workforce Certification Rates by 25%



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Intelligent Tutoring Systems (ITS) are adaptive computer simulations that measure learners' knowledge and engagement and use these data to personalize learning support. ITS allow learners to access automated, tutoring support as they need it, without burdening instructors. ITS offer potentially cost-effective enhancement to deepen learner support. ITS developed and tested in this impact study prepared learners for work-based problem-solving questions on the CompTIA certification exams.

Initial Impact Findings



Certificate Completion

↑25%

Earners with ITS access were 25 percent more likely to attain their CompTIA certification within 1 month of course end on average.



Impacts on Other Outcomes

- ◆ No impact on course completion
- ◆ No impact on additional certifications
- ◆ Employment and earnings results expected in May 2026

Implementation Findings



High Variation in Usage

54%

of learners with access used the ITS tool at least once

- ◆ Among adopters, usage was high (6 times/learner)
- ◆ Average usage session length was 22 minutes
- ◆ More support for adoption may increase impacts



High Consensus on Tool Usefulness

- ◆ Useful study tool, complementing classes
- ◆ Hands-on, interactive functionality
- ◆ ITS hints and feedback useful for reinforcing concepts
- ◆ Want even more modules & content

Learning Partnership Context

From 2022 to 2026, with support from [AIR's Opportunity Fund](#) and [PROPEL Center](#), the **American Institutes for Research** and **Per Scholas** partnered to:

- ◆ Assess feasibility of ITS development for Per Scholas IT support course
- ◆ Work with University of Memphis for ITS development and integrate it into operation
- ◆ Conduct a randomized controlled impact study with 134 cohorts and 2,543 learners
- ◆ Field an implementation study to understand usage and staff and learner experiences

Learn more:

