

SRI International

Center for Technology in Learning



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CS10K Evaluation Meeting

Washington, DC


June 2014



# June 2014 Update

## Completed

- Aligned *Exploring Computer Science* lesson objectives to CSTA, NETS, Common Core, and select state science and CTE standards
- Defined computational thinking practices (CTP) and focal knowledge, skills, and abilities (FKSAs) that constitute them, and modeled them in assessment design patterns
- Developed and applied CTP design patterns to guide the development of assessments for ECS Units 1-4, plus a summative assessment
  - Scenario-based tasks, w/ embedded items
  - Constructed response



# June 2014 Update

## **Completed**


- Designed and developed preliminary scoring rubrics for ECS Units 1-4
- Piloted assessments for ECS Units 1-3
- Calibration on scoring rubrics for ECS Units 1-3
- Scored assessment for ECS Unit 1
- Conducted retrospective cognitive interviews with students in LA pilot group



# June 2014 Update

## In Process


- Aligning *Exploring Computer Science* lesson objectives to NGSS standards
- Piloting assessment for ECS Unit 4 and summative assessment
- Designing and developing preliminary scoring rubric for summative assessment
- Calibrating on scoring rubrics for ECS Unit 4 and summative assessment



# June 2014 Update

## **In Process**

- Scoring assessments for ECS Units 2 and 3, later Unit 4 and summative assessment
- Conducting retrospective cognitive interviews with students in Santa Clara pilot group
- Drafting teacher/instructional reporting forms



# June 2014 Update

## **Next Steps**

- Scoring, scoring, scoring
  - Teachersourced scoring model
  - AP scoring model
- Data analysis
- Assessment task and rubric revision
- MC, conceptual knowledge assessment items
- Score reporting forms (for 2015-2016 AY)

## **Pending Funding....**

- PACTOLA (PACT Online Assessment)
- NSF-DRK12 Implementation Study



# Validity Evidence

## **PACT**

- Test content
  - CS content expert and teacher review
  - Alignment with standards
- Response Processes
  - Retrospective cognitive interviews
- Internal Structure
  - Assessment score analysis (preliminary)

# Validity Evidence

## **PACTOLA & DRK12 Implementation**

- Test content, response processes, internal structure
  - Relations to other variables, particularly math performance, other CS student outcome measures
  - Consequences of testing (test use)
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- ***Assessment validation is ongoing process, different types of use (inferences) require different type(s) and weight(s) of validity evidence***
  - ***Validation of ECS assessment is no different, it is an ongoing process that will unfold over several years***



# Thank You!

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