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)

- 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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