Transformational Digital Learning—Insights and Reflections on Student Assessment

9th International Skills Forum

Reimagining Education and Skills Development for a New Normal

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Innovations in Cognitive and Non-Cognitive Assessment

Sensor-Enhanced Assessment

- *Approach*: Obtain physiological data from students during assessments
- *Premise*: Physiological data provide objective indicators on learner anxiety, effort, engagement, and/or fatigue; data that can inform test quality and outcomes

Game-Based Assessment

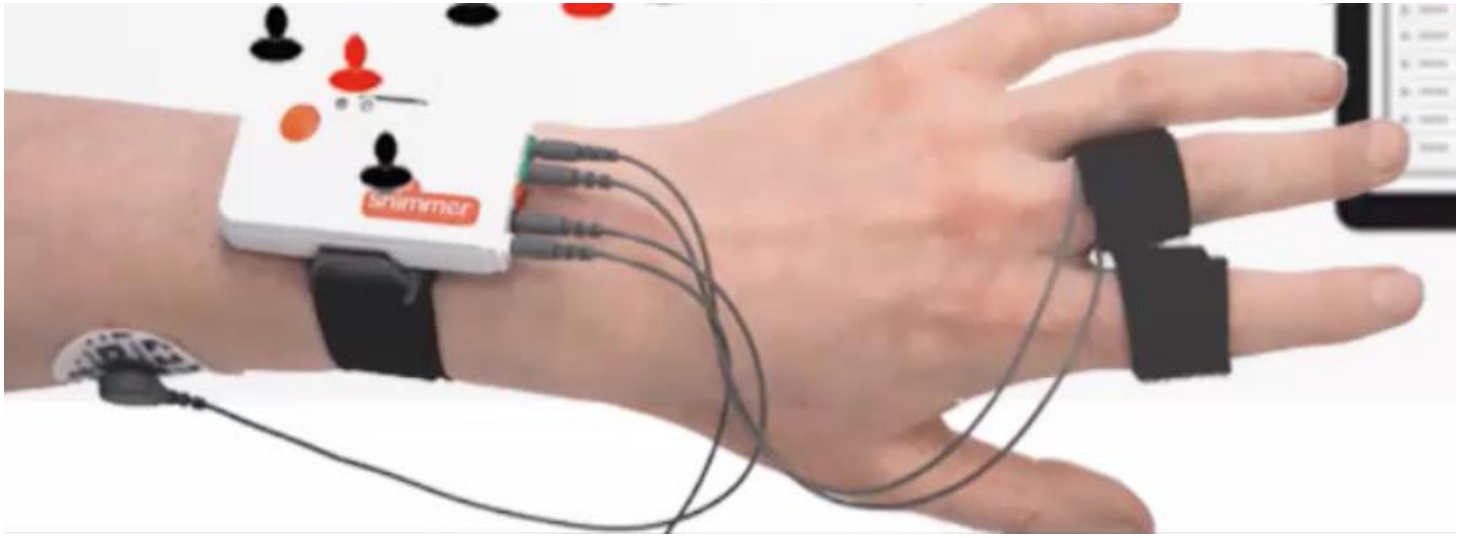
- *Approach*: Develop cognitive and non-cognitive game-based assessment
- *Premise*: Assessment during game play indexes non-traditional constructs

Mobile Assessment

- *Approach*: Expand functionality of Tangerine for teacher use and early childhood
- *Premise*: Broader applicability to formative and summative assessment and at an expanded continuum of children's developmental progressions

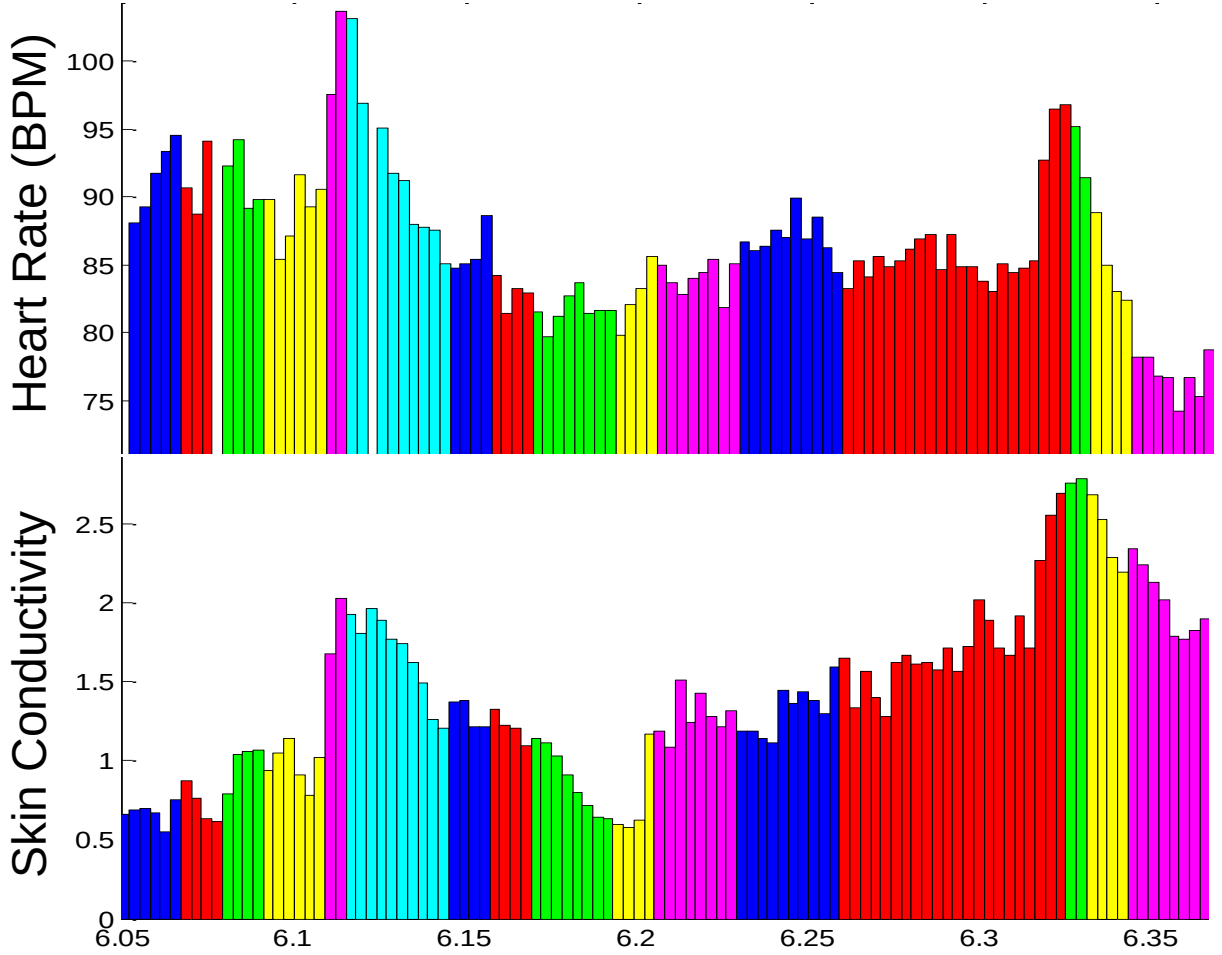
Sensor-Enhanced Assessment

NeuroLynQ – Sensory System



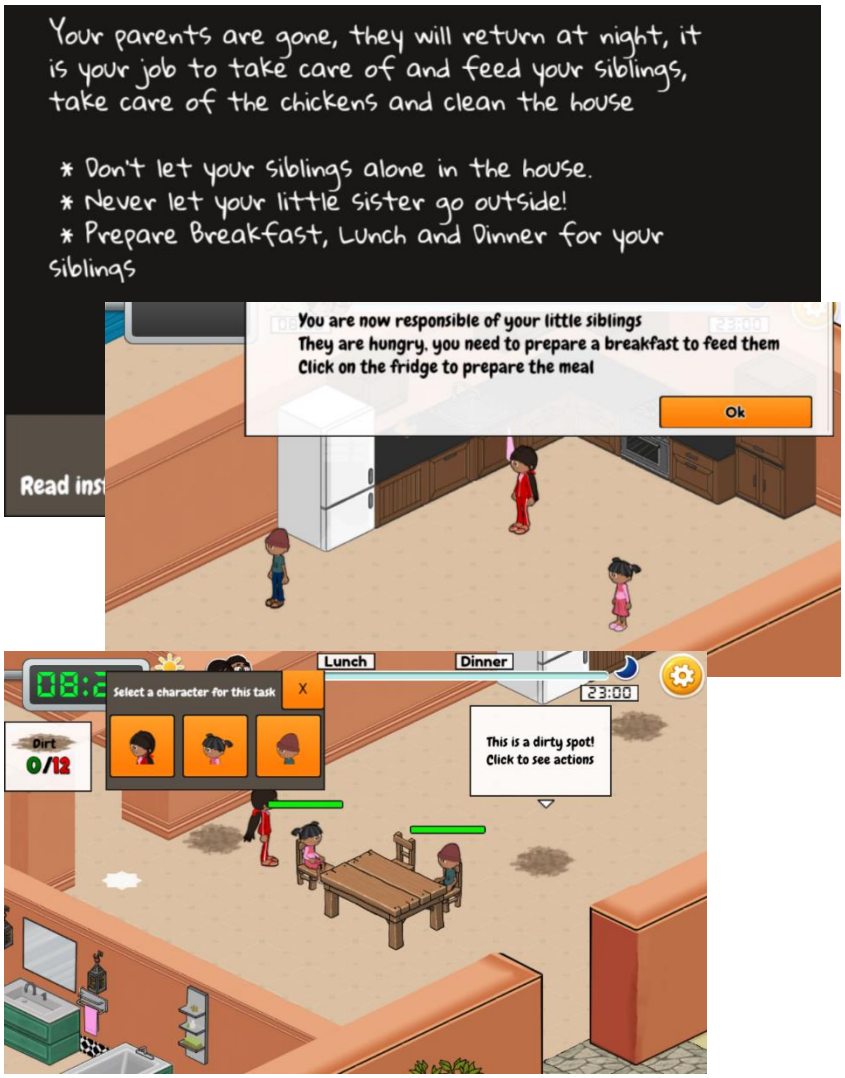
Sensor-Enhanced Assessment

- Sensor data complement subjective reports and task performance metrics
- Interpretational challenges (anxiety, cognitive load, distraction, fatigue)
- Differential time resolution
- Integrating time series data from multi-sensor data streams
- Interindividual vs. intraindividual differences

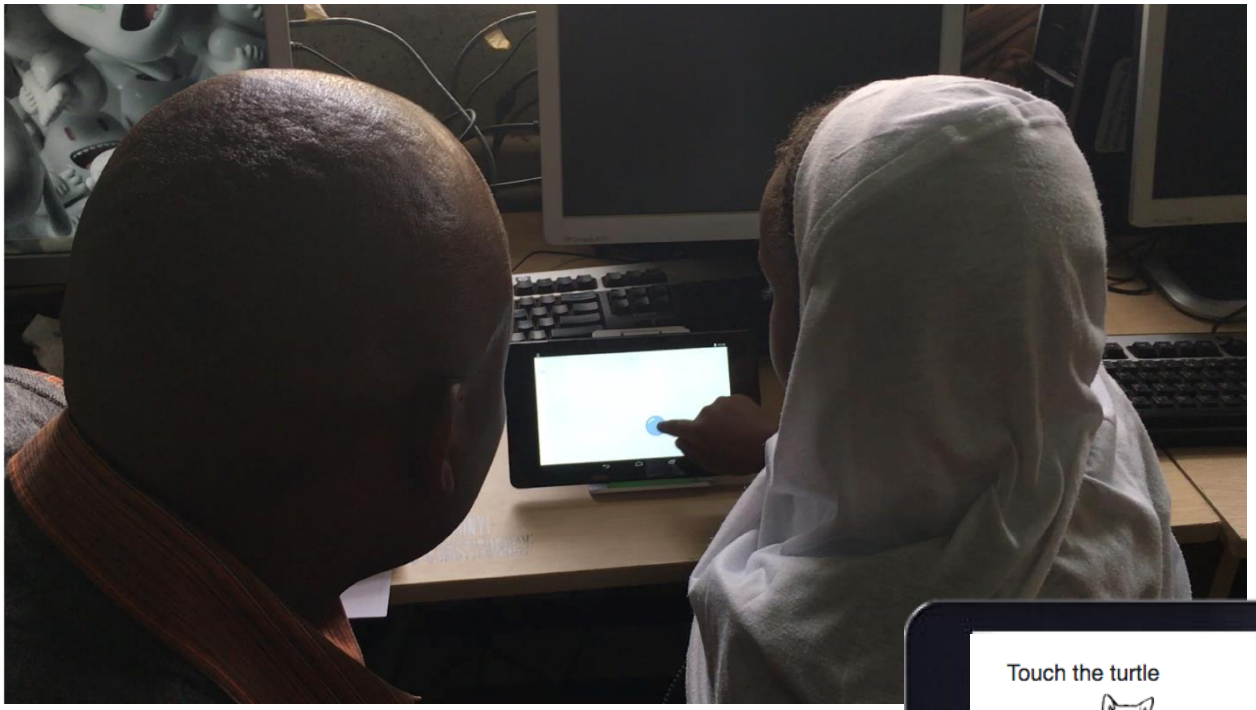


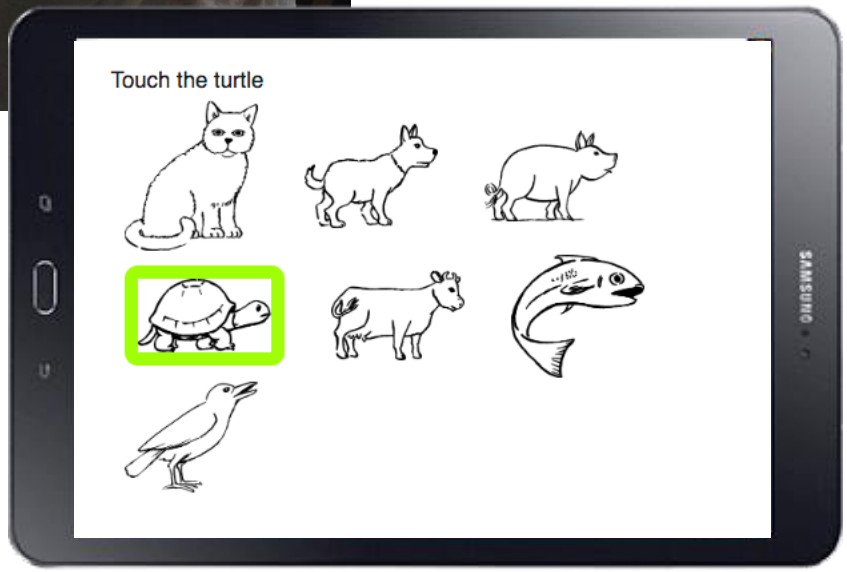
Time series sensor data for 1 participant in a cognitive interview;
Each color corresponds to a different section of the interview

Game-Based Assessment: Problem-Solving & Conscientiousness

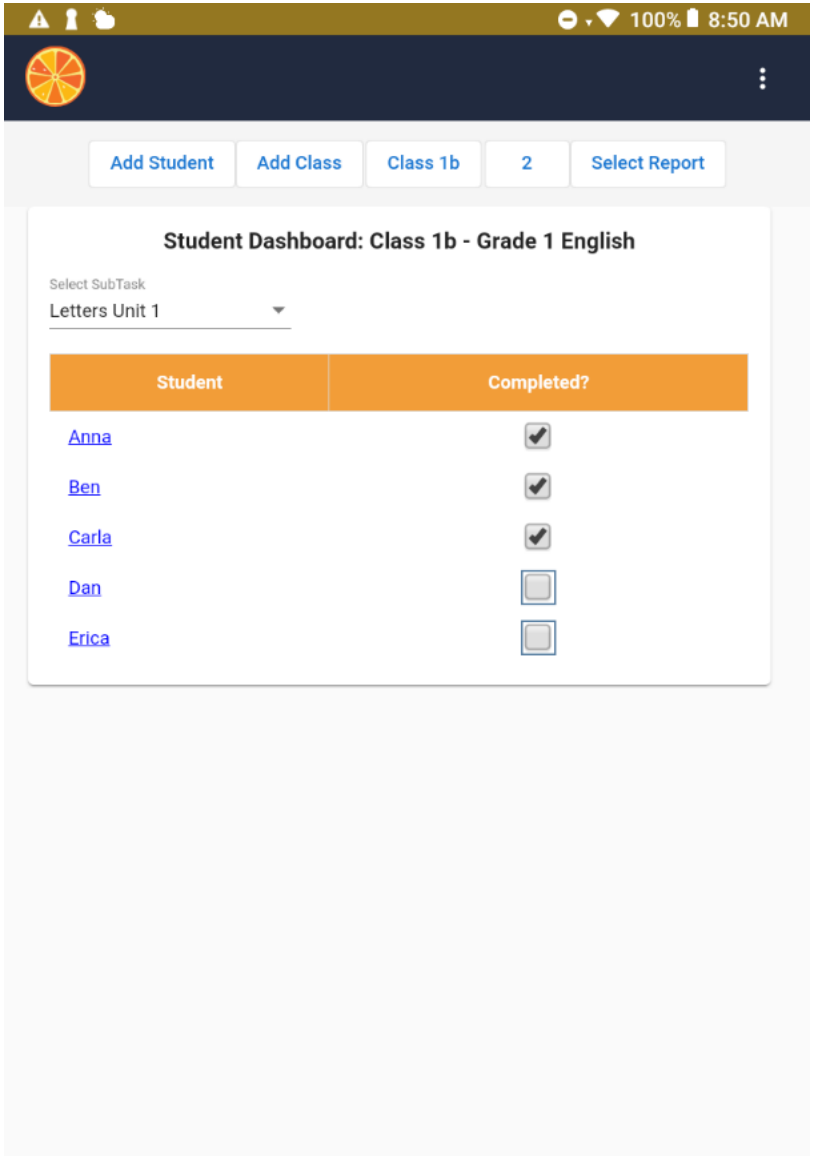


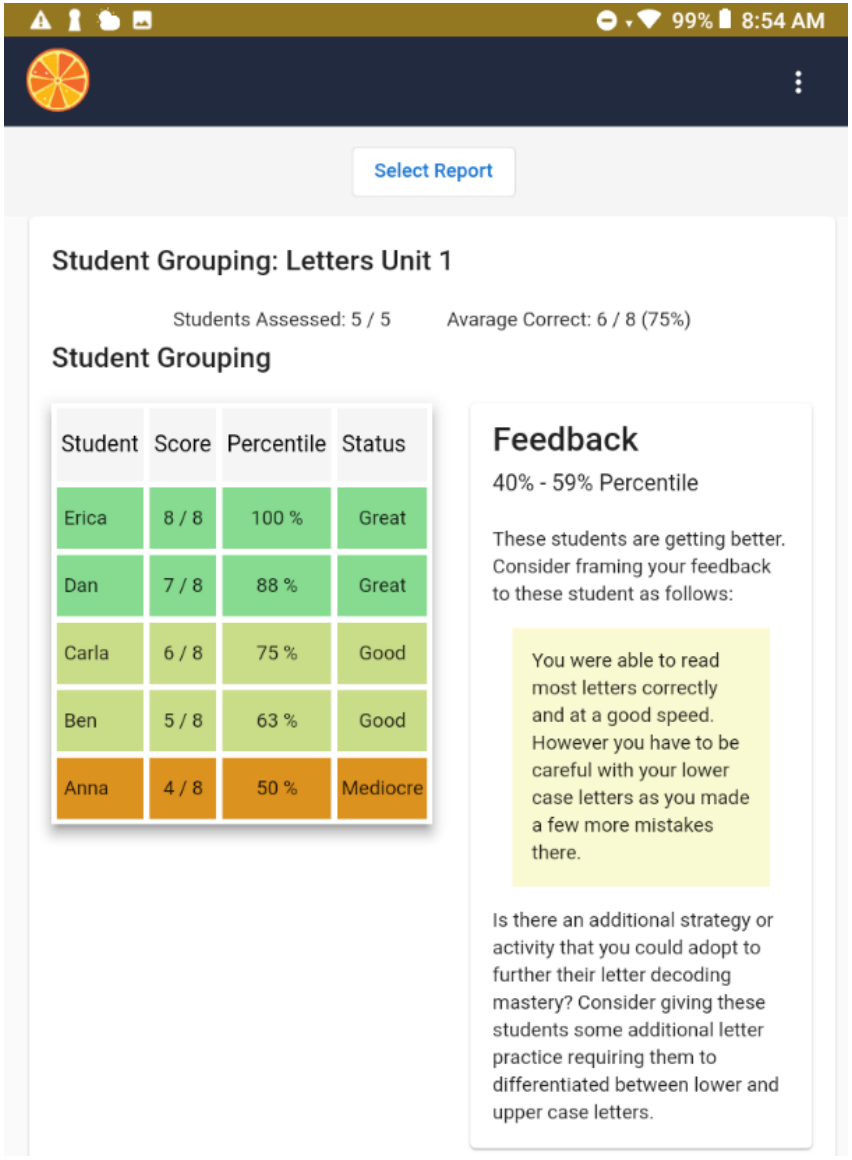
Mobile Assessment of Executive Functions - Tangerine:EF Touch





Mobile Formative Assessment & Pedagogical Guidance





Thank You!

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