Time for interview: 15-20 minutes per student

Research question #1 :How do the project's school-day and summer-intensive project work and career awareness activities impact students' attitudes toward computing and ability to engage in computing practices? (Learning outcomes related to CT)

Methods

1. Pre & Post surveys on attitudes
2. Analysis on student Apps (CS content knowledge)
3. Debugging/ embedded assessment
4. Semi-structured interview

Semi-structured interview with a sub-set of summer camp participants (n of 60), focus on

1. Students' perceptions on Computing/CS/program and App Inventor?
2. Students' CT practices

Interview structure

1. Perceptions about Computing/CS
    a. What is computing/cs/programming for?
    b. description of App Inventor
       How would you describe App Inventor to a friend that had never seen it?
    c. Experience: find programming to be easier/harder, more practical/abstract, concrete or fun/boring than they had thought
    d. Confidence: I can/can't
2. Project/App design & development (Interview on your Final App)
    a. choosing problem (community-related or...)
    b. problem-solving: how can the App solve this problem? blocks used?...what is challenging? changes made?
    c. feeling about the App: what do you feel proud of , what can be improved

3. Debugging/problem-solving (---Interview/brief survey on their debugging project)
       need these questions be more specific and turn it into a short survey
    a. identify the problem/bug
    b. choose solutions
    c. solving the bugs

References:

1. Artifact-based Interview protocol http://scratched.gse.harvard.edu/ct/assessing.html
2. Brennan, K., & Resnick, M. (2012). Using artifact-based interviews to study the development of computational thinking in interactive media design. Paper presented at annual American Educational Research Association meeting, Vancouver, BC, Canada.