Girls Building Information Technology Fluency Through Design

Melissa Koch
Principal Investigator
SRI International

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Build IT Approach
Girls Building Information
Technology Fluency Through Design

- A problem- and designed-based curriculum
  - Follows the *Understanding by Design* approach
  - Uses design and communication technologies to motivate girls to use technology, develop IT fluency, and consider IT careers
- Connects mathematics and computer science concepts
- Frameworks for involving local IT professionals
- PD materials and supports for youth staff
- Embedded performance tasks and Family Tech Nights
- Formative and summative evaluations
  - Inform the design of the curriculum
  - Indicate what girls are learning
Build IT Skills and Concepts

- Understand that design is a process with specific stages and elements and be able to apply this process (NRC).
  - Girls use the design process throughout Build IT.
- Understand the importance of iteration and its impact on the definition of the problem (NRC, SCANS).
  - Girls incorporate feedback from users to revise their designs.
- Understand that networks (e.g. Internet) have structures that allow information to be routed between computers (NRC, SCANS).
  - Girls troubleshoot technical problems.
- Develop an understanding of and ability to use algorithmic thinking (ACM).
  - Currently disconnected from information technology and design activities.
Questions We Are Addressing

- Are girls who participate in Build IT more likely to become interested in IT careers and make plans to take courses in high school to prepare them for those careers?
- Do girls who participate in Build IT become more knowledgeable about IT careers and learn IT concepts?
- Do girls who participate in Build IT develop more contemporary IT skills and intellectual capabilities for IT?
- Does Girls Inc. grow in its capacity to offer IT fluency focused programs over the course of the project?