

throughmywindow.org

What is it?

Through My Window is engineering education that applies research from the learning sciences—including the use of cognitive tools such as narrative and knowledge building—in an idea-centered digital environment. Together these approaches support deep learning and address the critical need of preparing young learners to participate in the knowledge society. The curriculum includes:

- o Young adult novels
- o Interactive, online learning modules
- o Offline enrichment activities

The project establishes relevance and broadens perceptions for traditionally underrepresented groups in engineering—especially girls—in informal ed settings.

What questions were asked?

Hypothesis #1: A knowledge building discourse can be started and maintained in an informal education

- What is the quality of the knowledge building discourse? Does it get better over time?
- Will students, given the opportunity, extend the discourse to new areas?
- What scaffolding does the learning environment need to support novice participants in this discourse?

Hypothesis #2: The use of narrative can provide a means to motivate informal learners to engage in knowledge building.

- Does the use of narrative influence participation in knowledge building?
- Are certain types of narratives more effective in influencing participation in knowledge building?



Audience

- Children and young teens
- Afterschool educators and administrators

Partners

- Smith College
- Springfield Technical Community College
- Connecticut After School Network
- University of Massachusetts Center for Educational Software Development (CESD)
- Quinn Evaluation Consulting

Challenges

- Applying learning theory in a digital environment
 - o **Solution:** innovative integration of design and programming teams
- Implementation in diverse afterschool landscape
 - o **Solution:** adaptable lesson plans, resources including audiobook and Spanish translation

Evaluation

- Students have more sophisticated ideas about engineering concepts and are significantly more likely to say “Engineers do many different kinds of things,” “Engineers want to make people’s lives better,” and “I would consider becoming an engineer” after using Through My Window
- Strong interest from afterschool educators and administrators for idea-centered afterschool STEM programming that incorporates literacy and engages diverse student groups
- Educators report Through My Window narrative-based resources lead to “critical thinking, collaboration, and problem solving” discourse



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