



## Through My Window

THE YOUNG WOMEN'S LEADERSHIP SCHOOL (GIRLS INC.)

ASTORIA, NEW YORK

Using stories, activities, and ideas to engage students in engineering.  
[throughmywindow.org](http://throughmywindow.org) • [teamthroughmywindow.org](http://teamthroughmywindow.org)

### HOW DID THE YOUNG WOMEN'S LEADERSHIP SCHOOL USE THROUGH MY WINDOW?

Girls met to engage with Through My Window twice each week after school. The **afterschool program format** provided a freer, less structured atmosphere than a classroom setting. Students **extensively debated and investigated** the questions and themes posed by the novel, *Talk to Me*. The meeting space had plenty of space for students to move around, as well as teachers who encouraged the expression of full emotional and intellectual enthusiasm for the story at hand.

### MIA'S EXPERIENCE WITH THROUGH MY WINDOW:

Mia found it intriguing that the *Talk to Me* “story...has an engineering background, like when the mom created the phone and how the battery lasts for a couple of years.” She also loved the probing questions that

“I think people that become engineers are people that want to solve problems. People that want to make the world better. People that want to inspire others [and] create ideas and really think about things.”

—Mia

accompanied the reading because it “**got my mind thinking**.” She was fascinated by the question, “Do robots have emotions?” and all the questions and scenarios that extended from it—for example, “if they are created to act like humans, would they still have to follow human rules?”

The Through My Window curriculum opened Mia to new ways of thinking about technology. She said, “We started talking about robots and how technology’s getting to that point...something that I didn’t know before is how engineering is getting to that point where people get all these ideas and they’re turning them into actual things...**what you can do is much better than what I had thought.**”



This material is based upon work supported by the National Science Foundation under Grant Nos. 1223868 and 1223460. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

## WHAT DO KIDS GET OUT OF THROUGH MY WINDOW?

Students experienced an **increased sense of wonder** at human technology and biology—for example, the exercise in facial recognition demonstrated how effortless high-level skills like these are for the human brain, and how challenging these capabilities are to engineer using computers and sensors. Students came away with a greater appreciation of the challenge of engineering and the host of skills required to do it well, including **teamwork** and **perseverance**.

## HOW DOES THROUGH MY WINDOW ADD VALUE TO THE CLASS/PROGRAM?

The two classroom teachers appreciated that the program provided ready-made lesson plans, links, exercises and other forms of enrichment. These tools made it possible for non-STEM instructors to offer **quality information and experiences** to students from a curriculum that provides content in **both English Language Arts and engineering**.



Students working as a team.



“As kids we really like stories, and this one’s a good way to learn and have fun doing it.”

—Young Women’s Leadership School student

“I never really realized that there was so much thought process that goes into creating simple things.”

—Young Women’s Leadership School student

## HOW DOES THROUGH MY WINDOW PROMOTE IMAGINATIVE EDUCATION?

Students were highly engaged by the **hypothetical scenarios** generated by plot developments in the novel and by some of the enrichment activities and exercises that are part of the Through My Window curriculum. Students also admired how engineers have the **power to make real** what they first envision as hypothetical.

## A CATALYST FOR DEBATE

Students loved how much the novel, *Talk to Me*, spurred **passionate debate** in class. The story has a core engineering problem on which the plot hinges, a budding romance, characters who are not always as they appear, and a family dealing with a potentially devastating legal problem.

- Students said that the classroom debates deeply engaged them and forced them to get better at **articulating and defending their points of view**.
- Students debated **ethical implications**:
  - Is it ethical to put a human brain in a robot?
  - If humans engineered robots that could think and feel, would it be unethical to withhold rights from them?
  - Is it ethical to use human blood to keep a human brain in a robot alive?

