

Developing a new generation of collaborative scientists and citizens through popular media

AWARD # 2314107

Audience & Settings

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- **Audience:** 3-6 year old children
- **Discipline type:** Science and Engineering
- **Learning environment:** family homes

Key Achievements

Project Description

This project developed 8 *Elinor Wonders Why* episodes for children ages 3–6 that model inclusive, collaborative scientific work among boys, girls, and diverse scientists. The project is digitizing a validated instrument to measure perceptions of scientists and collaboration and evaluate the impact of the episodes. Findings will be disseminated to examine how media shapes children's perceptions of scientists and STEM as a collaborative endeavor.

- Developed eight new episodes of *Elinor Wonders Why* that aim to improve attitudes and behaviors towards females in science and engineering and to encourage mixed-gender collaboration.
- In testing phase of a gamified assessment to collect data on young children's perceptions of science and engineering. The tool shows promise as a scalable, inclusive assessment platform for capturing young children's science perceptions.
- Developed the *Collaboration is Key* that was screened at the NSF 75th Anniversary event (audience: 540+). The media short aims to portray contemporary views of science, engineering, and careers in STEM fields.
- Highlight: NSF's 75th anniversary through a public engagement event, expanding awareness of STEM learning media.



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Costumed characters from NSF funded educational media greet young attendees at the NSF 75th anniversary event at the University of Rhode Island.

Paper vs. Digital

HAND-DRAWN SCIENTISTS

- Often had **objects** related to science
- Tended to be **solo**

DIGITALLY-CREATED SCIENTISTS

- Many created avatars that looked **similar to themselves**
- Tended to have a **partner** (but many were thinking of this additional person as a friend rather than a research partner)
- Thought went into the **scene-selection**

Initial testing of the digitized tool revealed promise when compared to traditional models of assessing perceptions of science in young children



A still from the "Collaboration is Key" media short that aims to portray contemporary views of science, engineering, and careers in STEM fields.