

STEM for All Video Showcases & Multiplex

The STEM for All Showcase and Multiplex were funded by the National Science Foundation. These platforms promoted knowledge sharing between researchers, practitioners, higher ed faculty, funders, and the general public.

The STEM for All Video Showcases

- Annual 8-day event featuring over 200 projects per year
- Facilitated discussions
- Public Choice, Presenter Choice and Facilitator Voting

https://stemforall2022.videohall.com



The STEM for All Multiplex

- Over 1600 searchable project videos, imported from each annual Video Showcase
- Monthly themes with expert panels, playlists, resources and synthesis briefs
- Members can create and share video playlists of interest

https://multiplex.videohall.com

STEM for All Video Showcases: Overview

STEM for All Video Showcases was held annually for eight days in May from 2015 -2022

Over the last three years, 2020, 2021, 2022, the STEM Video Showcase has hosted 725 3-minute video presentations which were created by 2790 lead and copresenters from over 600 different institutions.

All presentations related to innovative approaches to improve STEM and CS education with a focus on broadening participation, access, and equity. 25% of presentations were from Minority Serving institutions. Projects represented were funded by NSF and 10 other federal agencies.

The Video Showcase allowed those creating innovative programs and conducting research to share their work broadly, with both researchers and practitioners. They were able to do so, while their work was still in progress. Facilitated provided presenters with feedback, resources, ideas and new audiences for their work. During the last 3 showcases over 13,500 messages were exchanged.

STEM for All Video Multiplex: Overview

Launched in 2019, the Multiplex was created to magnify the effects of the Video Showcase by drawing on Videos previously presented in the showcase, and expertise of researchers who created these videos to examine different themes in depth.

<u>Videos</u>: The Multiplex contain over 1,620 project videos that were imported from each Video Showcase from 2015 – 2022. Videos can be filtered by keyword, state, funder, NSF program, institution, and those that were recognized.

<u>Curated Playlists</u>: Users can create and share Video Playlists related to their interests. In addition, curated playlists are shared monthly.

<u>Theme of the Month</u>: The Multiplex hosted a theme of the Month, which drew on expertise around a topic of interest. Each theme brings together:

- Playlist of videos
- Expert panel
- Resources related to the theme
- Follow-on discussion
- Synthesis brief

The Multiplex has been a service to the field and now houses a huge repository of work funded to improve STEM education.

Video Showcase Benefits Accrued to Presenters

After each showcase a survey was sent to all presenters and co-presenters. The data below is drawn from 797 survey responses.

Presenters and Co-Presenters reported that the Showcase enabled them to:

- Broadly disseminate their project work. (97% of respondents)
- Learn about related work in the field. (96%)
- Create a video that they can reuse for many purposes. (96%)
- Receive valuable feedback, ideas and resources that will impact their project moving forward (80%)
- Reach new audiences interested in taking part in the project, or using project resources. (64%)
- Make new contacts for possible future collaborations. (58%)



The Video Showcase and the Multiplex provided the NSF as well as individual projects with a broad dissemination vehicle nationally and internationally.

All of the past STEM for All Video Showcases and the related Multiplex site have been viewed by 625,921 users from over 200 countries and territories. These users generated 1.6 million page views.

Impact of the Showcase and Multiplex Quotes from Respondents:

In a summative survey we asked respondents to share the impact, if any, that the Video Showcase and Multiplex had on them or on their project work. We share a few of the responses:

I met people who are working on similar projects and gained new ideas/perspectives to help me think about my work in the future. Was exposed to new literature and methodologies.

I learned about the range of projects happening in STEM education so I can build on their work and know who to reach out to. I especially liked seeing work-in-progress, which you don't usually get to see in a publication.

The sheer volume of videos available to watch and discussion boards to participate in at my own pace was invaluable to my own learning and introduced me to other researchers in the field who I may not have otherwise interacted with.

It was so helpful to work with our research partners on creating a video for the STEM for All Showcase. Abstracting our grant project into an informative and entertaining 3 minute video helped us to focus on the projects most important goals and activities, and left us with an artifact that has been used repeatedly for a variety of audiences.

The webinars and curated themes enticed me to explore more deeply the work of my colleagues. I always found this worthwhile, and again, might not have done this without the invitation to various presentations and playlists.

I appreciate the ongoing access to the presentations and the syntheses. I refer to them when writing grant proposals, implementing projects and research, and writing up my findings.

Definitely kept us informed about current work in science curriculum development, teacher PD, successful and less successful efforts to meet DEI goals. Helped connect us with others working towards similar goals.

Implications for future

As presented their were multiple benefits of the Video Showcase and Multiplex. Researchers learned of each other's work in progress, and enabled them to reach practitioners interested in their innovative programs and research. Investigators made new connections for future collaborations and grants. NSF funded work was broadly disseminated nationally and internationally. While the STEM for All Video Showcase and Multiplex are coming to an end, it is worth investing in similar endeavors in the future.

The STEM for All Multiplex & STEM for All Video Showcase Created by TERC & Funded by NSF #1922641

