

# Equity Toolbox: Book Study as a Model for Supporting Staff Learning and Development

## THE FUTURE NEEDS A PUSH

FEBRUARY 2024

### FEATURED

FORMER BOOK STUDY

RECENT BOOKS  
REVIEWED

PROTOCOLS

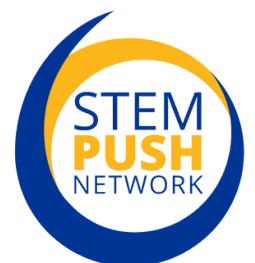
SUSTAINING AND  
SCALING THE  
DISCUSSION



Equity has been central to the work of STEM PUSH. Equity plays a pivotal role in our Hub design, our Networked Improvement Community (NIC), tools, and practices, and ongoing Network growth. We directly engage in focused trainings with members of the NIC, that are led by STEM PUSH Equity Lead, Dr. Lori Delale-O'Connor.

Dr. Lori Delale-O'Connor explains that reading and discussing a common text offers the opportunity for partners to learn new ideas and concepts as a Network. "We have found book study to be particularly critical around equity and justice-centered aspects of our work because members of STEM PUSH come from such a diverse array of backgrounds and training. When we come together around books that are cutting edge and challenge our thinking and understanding of STEM experiences for racially minoritized youth — like the three we read for this book study—we have the opportunity to really push our thinking and practice. In addition to centering the equity-focused content of the books, we provided guiding protocols for programs to run their own book studies as professional learning for staff. Our ultimate goal of extending this learning was to fill professional development gaps around equity that pre-college STEM programs have noted they face."

This issue of the newsletter examines the three books selected by STEM PUSH for our February book study and the discussion protocols used to advance equity training in our network.

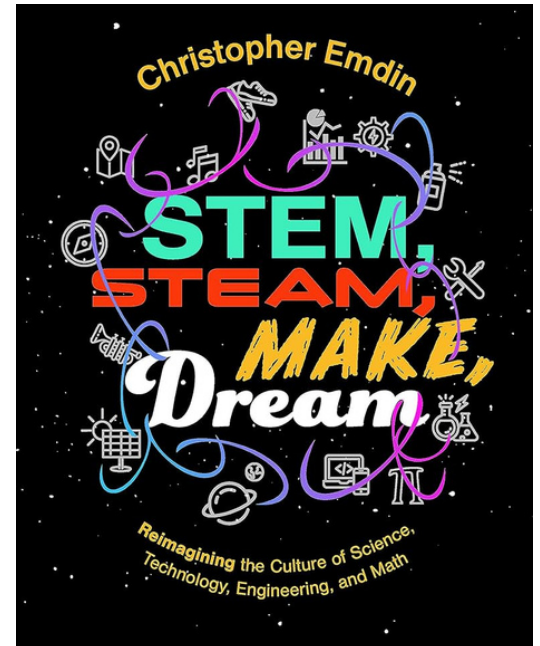


# STEM, STEAM, Make, Dream: Reimagining the Culture of Science, Technology, Engineering, and Mathematics

by Dr. Christopher Emdin

*STEM, STEAM, Make, Dream* explores how learning science, technology, engineering, and mathematics (STEM) can transform the lives of young people. This includes reimagining our collective relationship to STEM by making it more accepting and accessible than previously experienced by many youth. Examining the ways that STEM has marginalized many children, the book calls for a necessary incorporation of the arts - including culture - to serve as an anchor for instruction.

The book provides educators, policy makers, and community leaders with tangible ways to honor culture, increase equity, and encourage curiosity to help all children claim their STEM identity. The book demystifies STEM, and shows a clear pathway to empowering children with the skills needed to succeed in a science and tech-based world.

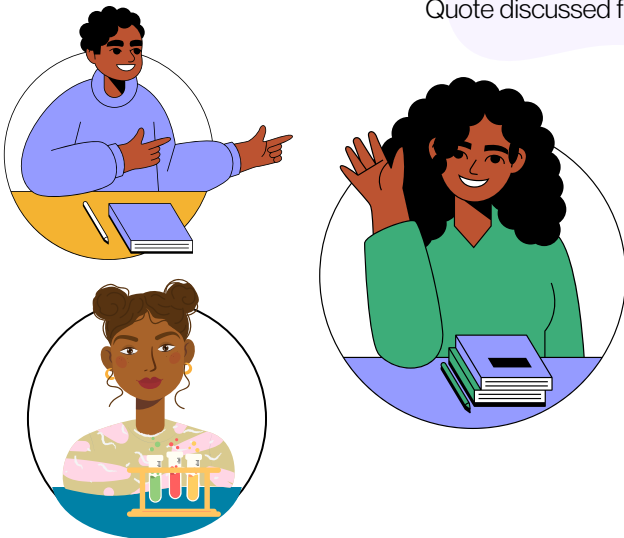


## The Discussion

For the book study, the pre-college STEM programs focused on reading and discussing chapters 1, 2, 8, and 10 from *STEM, STEAM, Make, Dream*.

**“The time will always come when teachers must ask themselves if they will follow the mold or blaze a new trail. There are serious risks that come with that decision. It essentially boils down to whether one chooses to do damage to the system or to the student.”**

Quote discussed from *STEM, STEAM, Make, Dream*



## Nurturing a STEM Identity

PCSPs discussed the choices they have as educators to make a difference with the lives of their students, as well as the larger systems of learning. Leaders shared the challenges they face daily, as they make decisions grounded in equity. *STEM, STEAM, Make, Dream*, was reported as being a useful tool for staff, educators and other leaders to better understand how students form a STEM identity and sense of belonging in STEM.

Nurturing a STEM identity and sense of belonging in STEM in ways that honor the experiences of minoritized students is a primary driver from our Theory of Improvement. STEM PUSH's theory of improvement is a set of hypotheses about how we get to meaningful collective impact on our shared problem, in order to broaden the participation of Black, Latina/o/e, and Indigenous students in STEM.

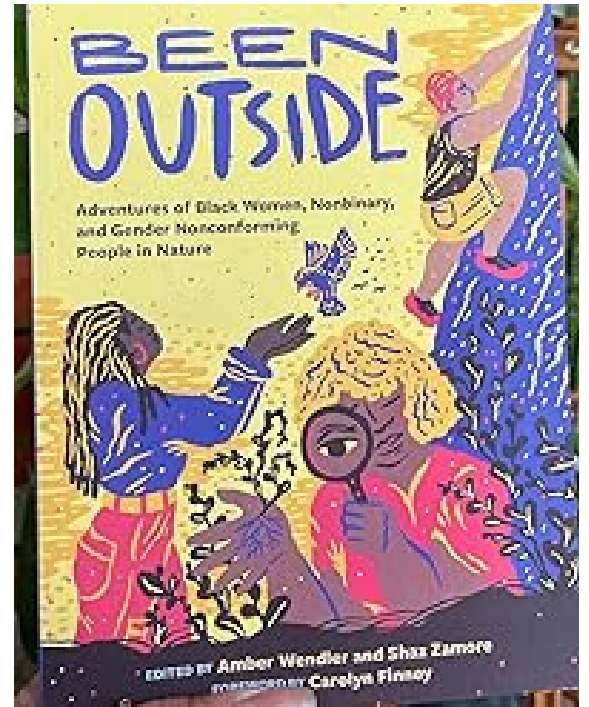
The **Theory of Improvement** combines our understanding of the system creating the problem we are seeking to solve with our “best bets” about the most high-leverage areas we can target to achieve our aim.

# Been Outside: Adventures of Black Women, Nonbinary, and Gender Nonconforming People in Nature

by Amber Wendler and Shaz Zamore

A thoughtful collection of essays and poems by leading Black women and nonbinary scientists explore how experiences in the natural world and life sciences shape the self in *Been Outside*. Encompassing identity, inspiration, ancestry, and stewardship, the writers and researchers contemplate how time in the field and outdoor adventures have enhanced or expanded their perspectives about what is possible.

What does it mean to be a Black woman or nonbinary scientist studying the natural world? Camille Mosley considers how the rich fishing tradition of Black Americans relates to their career in freshwater ecology, Sharon Dorsey reflects on her reaction to finally meeting a wildlife professional who looked like her, and Tanisha Williams shares her powerful emotional journey of returning to South Africa to study plants. Edited by Dr. Amber Wendler and Dr. Shaz Zamore, *Been Outside* reflects on the power of nature and the outdoor experience from the point of view of gender nonconforming, nonbinary, and women of color.



## The Discussion: Imposter Syndrome

Focusing on pages 76-82, *Been Outside* prompted leaders to reflect on the imposter syndrome so many of their students are facing, including feeling like they are not allowed to feel proud of their accomplishments because it is seen as gloating to their peers. Editors Wendler and Zamore point out in the book that hawks don't pass up opportunities for prey because other birds will judge them, a simple observation from nature that could help students feel differently about their own accomplishments.

Pre-college STEM program leaders also discussed the relationships that Black people have with nature, Black experiences working in STEM, nature as the best therapist, the importance of holding a willingness to be transformed, and the bravery to throw human constructs away. PCSPs also reflected on advice shared for allies to make the outdoors a safer space for Black people to enjoy and study.

## Diversity of Thought

With a variety of voices and writing styles, readers were enabled to find what resonated most with them and their work. Because of the range of diverse voices and ideas in *Been Outside*, participants all felt that the book was a good resource for their students, program staff and educators.

Janiene M. Langford, Director, California State University East Bay Mathematics, Engineering, and Science Achievement (MESA) plans to give an aspiring Marine Biologist in the program a copy of *Been Outside*. Langford believes the text will inspire the student, currently suffering from imposter syndrome.

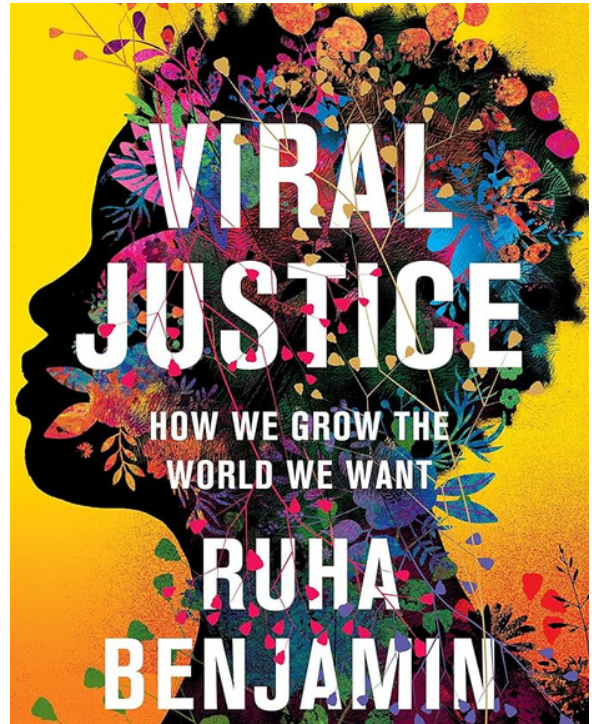


# Viral Justice: How We Grow the World We Want

by Ruha Benjamin

The twin plagues of COVID-19 and anti-Black police violence inspired author Ruha Benjamin to rethink the importance of small, individual actions, after years of groundbreaking research on race, technology, and justice, focusing on big, structural changes. Part memoir, part manifesto, *Viral Justice* is a sweeping and deeply personal exploration of how we can transform society through the choices we make every day.

Vividly recounting her personal experiences - her father's premature death, brother's experience with the criminal justice system, and challenges with the healthcare system, especially for Black mothers giving birth - Benjamin shows how seemingly minor decisions and habits could spread virally and have exponentially positive effects.



## The Discussion: “Spirit Murder”

The book study discussion centered on chapters 3, 4, 6, and 7, asking participants to reflect on a quote that resonated most with them. The group focused a discussion on the following excerpt from *Viral Justice*:

**“This is why I call bullshit on any attempt to naturalize and scientize the kind of routine denigration...” Instead, we should call it what it was — attempted spirit murder.”**

PCSPs considered the concept of “spirit murder,” and some reported having felt this in their daily lives, shining a light on the need to acknowledge that it is happening to students as well. Programs discussed the need for intentional support from educators and leaders.



## The Reality for Some Students

*Viral Justice* offered a comprehensive analysis of the impact of the COVID-19 on African Americans, including the higher rates of illness, death, and inequalities in healthcare and economics, as well as other injustices due to police brutality, medical racism, and environmental issues.

The extensive review of the realities for the Black community also prompted a discussion for PCSPs leaders about the importance of understanding the bigger picture for some of their students and how to best respond with teaching methods and other supports.

# Getting Started with A Book Study

Are you interested in starting your own book study? To get started, first set a goal(s), using a developed common language and understanding with your book study group. Next, in preparation to build community within the book study, explore and learn new information (practices, theories) around individual and community growth. With goals and community growth at the foundation, select a book that can help accomplish one or more of the following:

- Make things better for young people;
- Shift the teaching and learning environment;
- Think and/or work differently; and
- Support staff in their work.

Once these things are decided, it will be important to select a protocol that will most effectively facilitate a meaningful discussion within your group. Below are four different protocols STEM PUSH made available for this book study.

## Protocols

### Final Word/Last Word Protocol

- Divide into groups of 4-6, and instruct each participant to share a passage that resonated most with them/their work/their students, challenged their thoughts, or brought up questions.
- Repeat until all participants have shared, then allow each person to share their reactions to what was shared.
- Once each additional person has shared, return to the person who started for their “final word.”
- Allow each person to share their final thoughts based on the discussion with colleagues.

*Adapted from Facing History and Ourselves; Teaching and Learning Lab, Harvard Graduate School of Education*

### Quote Gallery Walk

- Facilitator selects and write 5 - 10 book passages around the room or on digital pages.
- *Round 1:* Participants read each quote and write reactions, connections, expansions, or questions (one idea per sticky note).
- *Round 2:* Participants to walk around again, read colleagues responses, and share any new thoughts. Note: It can be helpful to choose one color sticky note for round 1 and a different color for round 2.
- Discuss, organize and share in the large group.

### Affinity Mapping (Coding)

- Prior to meeting, assign a book section and create facilitator questions. Begin with an open-ended question about the takeaways or ideas of importance raised in the book.
- *Silent writing:* Give participants 10 minutes to silently post thoughts.
- *Silent reading:* Participants read the notes and independently connect and code the ideas by categories (consider prompts such as :“Which ideas go together?”).
- Debrief with open-ended questions such as:
  - What do you notice?
  - Were there any surprises?
  - What do you not see that you think is missing?
  - Were there any surprises?
- Prioritize (optional): Consolidate priority/action items.

*Adapted from Florida Department of Education Professional Learning Book Study Tool*

### Book in an Hour (Jigsaw)

- Divide the book by pages or chapters according to the number of staff participants. Allow 15–20 minutes of individual reading time (consider providing a comfortable space, snacks and music).
- Each participant will summarize their assigned pages with the whole group. Consider poster boards and sticky notes to aid with capturing information during the share out.
- Once, sharing is completed, discuss the full content, important takeaways, and any next steps.

## Additional Resources:

- [More Effective Professional Development with a Book Study](#)
- [Inspiration listicle:](#)
- [Next Steps](#)
- [Florida Department of Education Professional Learning Book Study Tool Kit](#)



The conclusion of the book study confirmed that the use of texts such as *STEM, STEAM, Make, Dream: Reimagining the Culture of Science, Technology, Engineering, and Mathematics*; *Been Outside: Adventures of Black Women, Nonbinary, and Gender Nonconforming People in Nature*; and *Viral Justice: How We Grow the World We Want* are extremely valuable in pre-college STEM programs quest for equity in their work.

Leaders believed the protocols learned during the study would also be useful in prompting discussions within their own programs and institutions. Reading a pre-determined portion of a book and coming together, with the guidelines provided through the discussion protocols, gave PCSPs leaders a template for implementation outside of STEM PUSH.

For a suggested reading list from STEM PUSH Network, please visit [www.stempushnetwork.org](http://www.stempushnetwork.org) and **[find a complete list on our blog](#)** (you can also click the highlighted text).



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