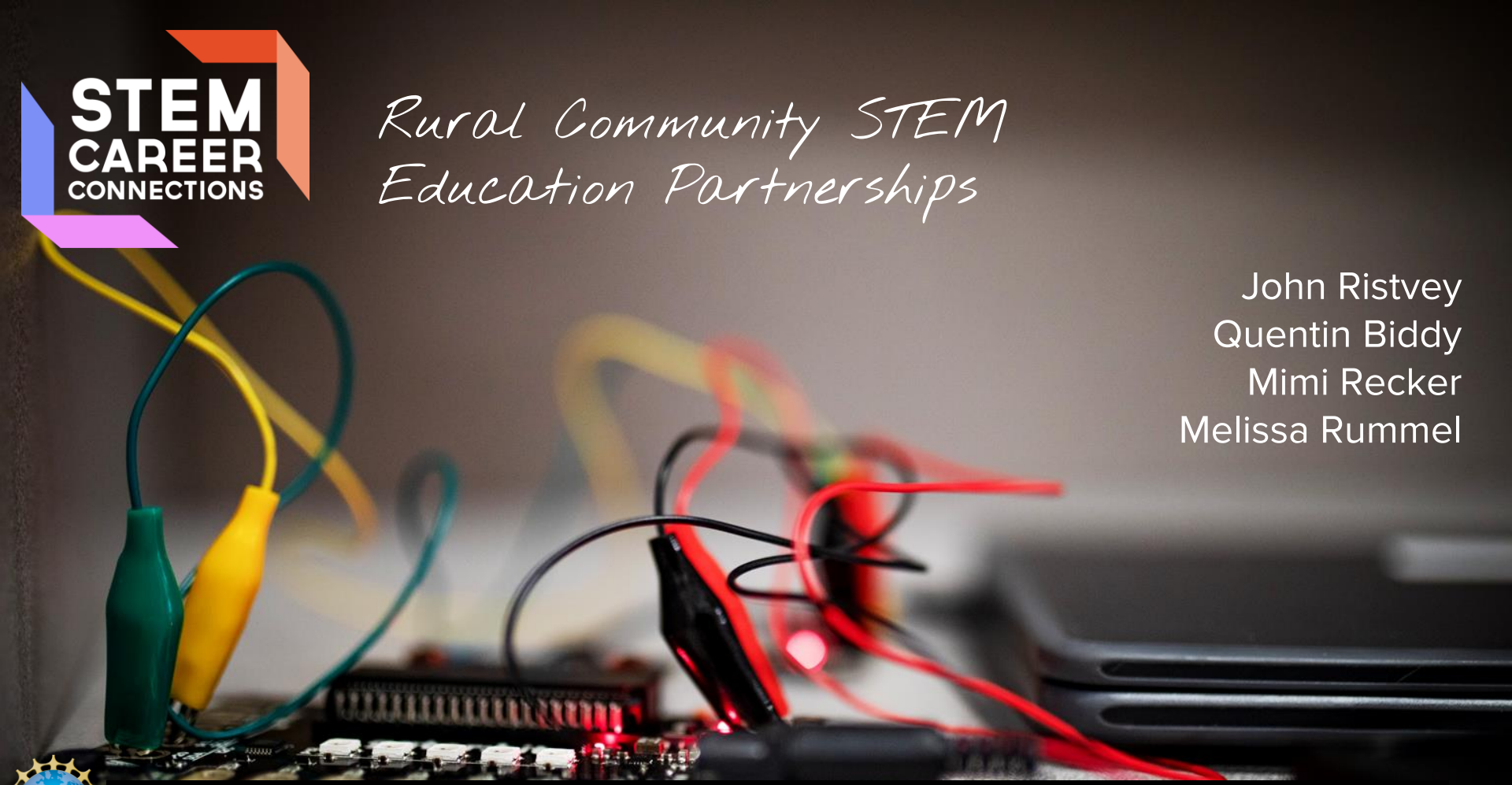

STEM CAREER CONNECTIONS

Rural Community STEM Education Partnerships

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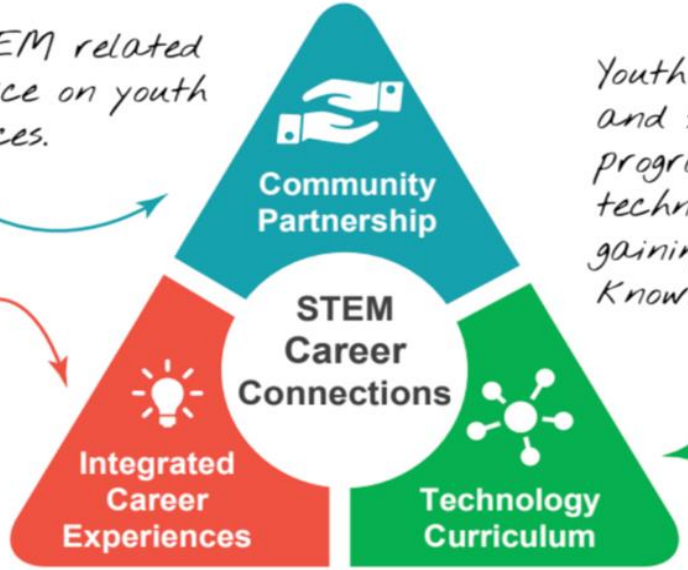
This material is based on the work supported by the National Science Foundation (NSF) under Grant # 2011518. Any opinions, findings, or conclusions expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

The STEM Career Connections Model

Local community members with STEM related careers meet with youth, offer advice on youth projects, and share career experiences.

Youth explore career pathways and opportunities that are integrated into the curriculum using existing career readiness materials (such as Naviance) in collaboration with Eagle Valley school counselors.



Youth in afterschool clubs and summer camps investigate programmable sensor technologies and 3D printers, gaining STEM skills and knowledge throughout the unit.

What is/are the inequities or challenges that you are exploring, and who are the beneficiaries of your work?

Key problem – Developing powerful and equitable learning experiences for middle school youth (in and out of school) that ignite interest in STEM and computing and develop career connections.

How will the strategic partnerships help address the identified inequities? (opportunities that partnerships represent)

- Building a community-based partnership with research organizations
- Foregrounding and addressing partners' problem of practice
- Involving local mentors and foregrounding local knowledge in order to tie youths' STEM experiences to the local community. This provides opportunities for youth to gain awareness of STEM in their community and to apply STEM to solve locally relevant problems.

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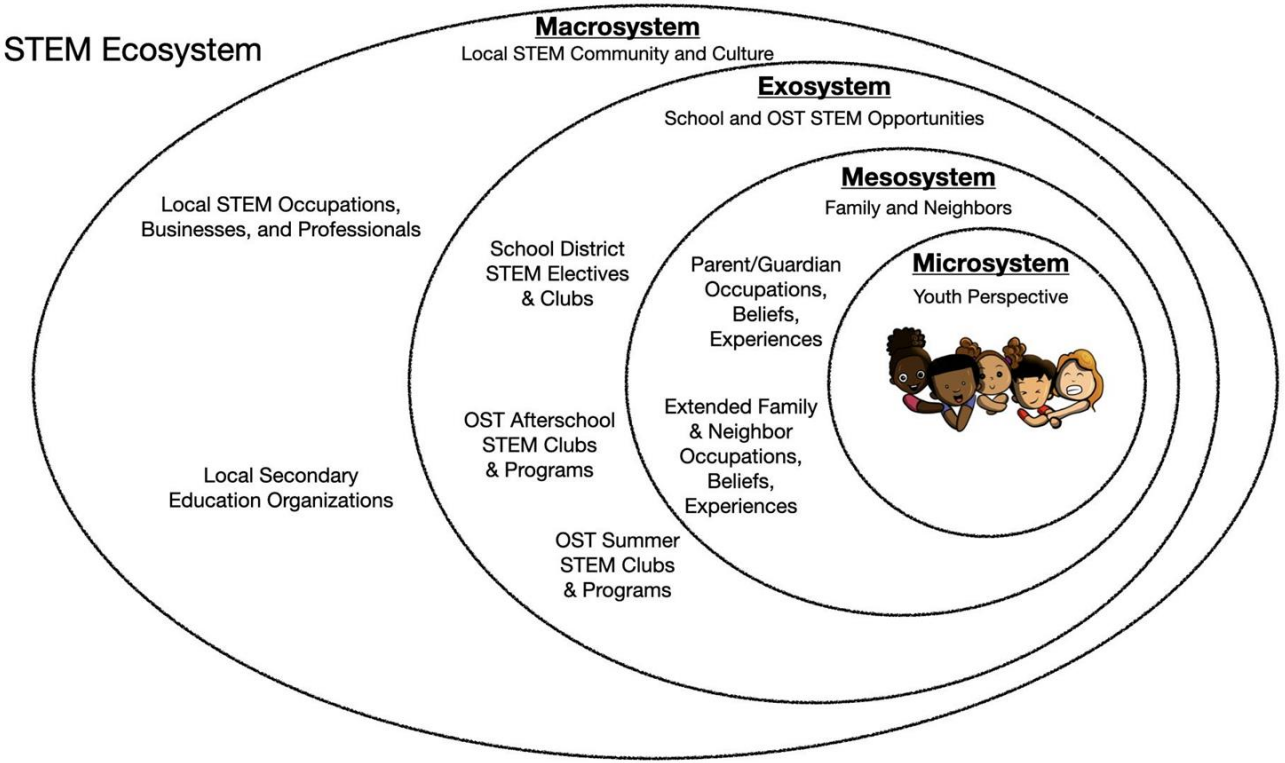
How do you build & sustain effective strategic partnerships? (challenges that partnerships represent and ways to address them)

Key Constructs (Yurkofsky et al., 2020):

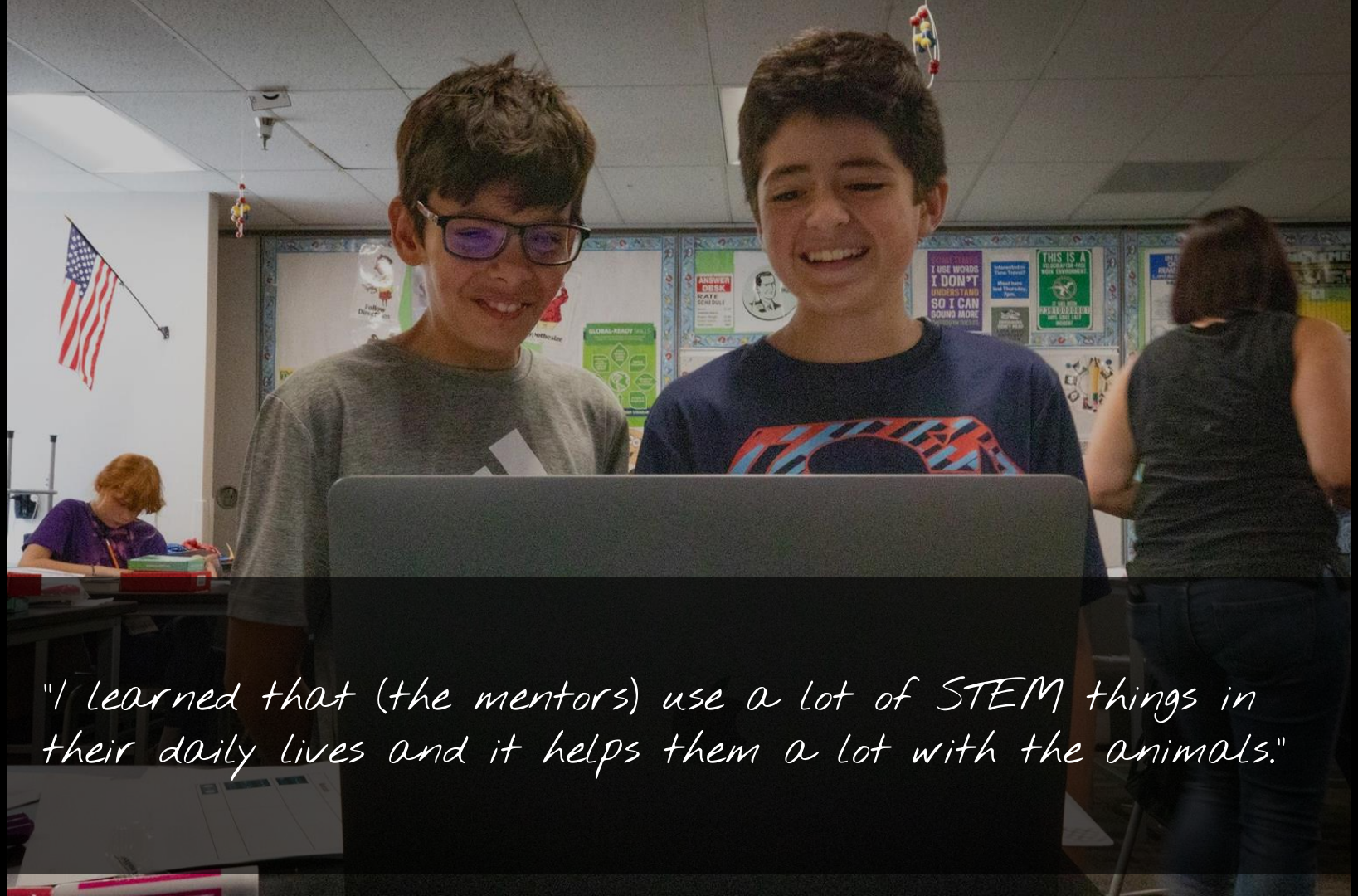
- Bridging
- Buffering
- Shared Tools
- Informal Support



What have you learnt about successful partnerships?

Partnership building entails:

- Building trust and relationships
- Being flexible and sensitive to local needs
- Engaging in regular reflective practice
- Attending to political dimensions and prior relationships



"I learned that (the mentors) use a lot of STEM things in their daily lives and it helps them a lot with the animals."

References and acknowledgment

Henrick, E. C., Cobb, P., Penuel, W. R., Jackson, K., & Clark, T. R. (2017). Assessing research-practice partnerships: Five dimensions of effectiveness. New York, NY: William T. Grant Foundation.

Yurkofsky, M. M., Peterson, A. J., Mehta, J. D., Horwitz-Willis, R., & Frumin, K. M. (2020). Research on continuous improvement: Exploring the complexities of managing educational change. Review of Research in Education, 44(1), 403-433.

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