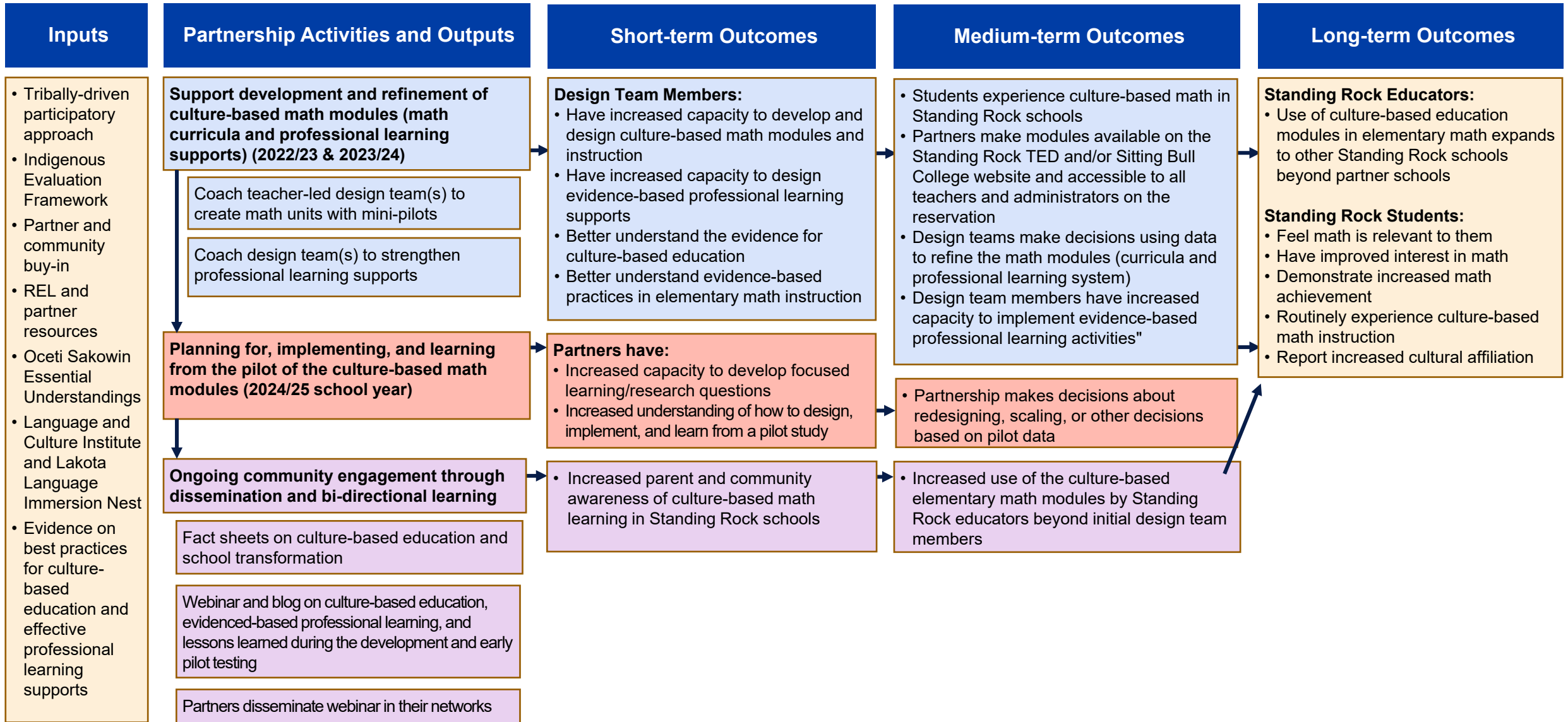


Strengthening culture-based elementary math education in Standing Rock



Contextual factors

- Broader strategic plans at the school and Tribal levels
- Working across cultural differences
- Availability of resources (within the schools and Tribe)
- Limited staff availability

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Inputs

- Tribally-driven participatory approach
- Indigenous Evaluation Framework
- Partner and community buy-in
- REL and partner resources
- Oceti Sakowin Essential Understandings
- Language and Culture Institute and Lakota Language Immersion Nest
- Evidence on best practices for culture-based education and effective professional learning supports

Partnership Activities and Outputs

1. Support development and refinement of culture-based math modules (math curricula and professional learning supports) (2022/23 & 2023/24)

- a. Coach teacher-led design team(s) to create math units with mini-pilots
- b. Coach design team(s) to strengthen professional learning supports

Short-Term Outcomes

Design Team Members:

- Have increased capacity to develop and design culture-based math modules and instruction
- Have increased capacity to design evidence-based professional learning supports
- Better understand the evidence for culture-based education
- Better understand evidence-based practices in elementary math instruction

Medium-Term Outcomes

- Students experience culture-based math in Standing Rock schools
- Partners make modules available on the Standing Rock TED and/or Sitting Bull College website and accessible to all teachers and administrators on the reservation
- Design teams make decisions using data to refine the math modules (curricula and professional learning system)
- Design team members have increased capacity to implement evidence-based professional learning activities.

Long-Term Outcomes

Standing Rock Educators:

- Use of culture-based education modules in elementary math expands to other Standing Rock schools beyond partner schools

Standing Rock Students:

- Feel math is relevant to them
- Have improved interest in math
- Demonstrate increased math achievement
- Routinely experience culture-based math instruction
- Report increased cultural affiliation

2. Planning for, implementing, and learning from the pilot of the culture-based math modules (2024/25 school year)

Short-Term Outcomes

Partners have:

- Increased capacity to develop focused learning/research questions
- Increased understanding of how to design, implement, and learn from a pilot study

Medium-Term Outcomes

- Partnership makes decisions about redesigning, scaling, or other decisions based on pilot data.

Long-Term Outcomes

Standing Rock Educators:

- Use of culture-based education modules in elementary math expands to other Standing Rock schools beyond partner schools

Standing Rock Students:

- Feel math is relevant to them
- Have improved interest in math
- Demonstrate increased math achievement
- Routinely experience culture-based math instruction
- Report increased cultural affiliation

3. Ongoing community engagement through dissemination and bi-directional learning

- a. Fact sheets on Culture -based education and school transformation
- b. Webinar and blog on culture-based education, evidence-based professional learning, and lessons learned during the development and early posting testing.
- c. Partners disseminate webinar in their networks

Short-Term Outcomes

- Increased parent and community awareness of culture-based math learning in Standing Rock schools

Medium-Term Outcomes

- Increased use of the culture-based elementary math modules by Standing Rock educators beyond initial design team members.

Long-Term Outcomes

Standing Rock Educators:

- Use of culture-based education modules in elementary math expands to other Standing Rock schools beyond partner schools

Standing Rock Students:

- Feel math is relevant to them
- Have improved interest in math
- Demonstrate increased math achievement

- Routinely experience culture-based math instruction
- Report increased cultural affiliation

Contextual Factors

- State-funded teacher retention grant program
- District student demographics
- District staff capacity