

RECONCEPTUALIZING



EDUCATION

for African American Learners



Reconceptualizing the purpose of science education.

- Reconceptualizing the purpose of science education requires a shift from a state-sponsored effort to bolster the workforce and consumer base toward an effort to dismantle systemic racism.
- Theoretical Grounding - it reflects Mutegi's (2011) articulation of socially transformative curriculum (content, currency, context, critique, and conduct)

References:

- Codrington, J. (2014). Sharpening the lens of culturally responsive science teaching: A call for liberatory education for oppressed student groups. *Cultural Studies of Science Education*, 9, 1015-1024.
- Goduka, N. (2005). Eziko: Sipheka sisophula. Nguni foundations for educating/researching for sustainable development. *South African Journal of Higher Education*, 19, 467-481.
- Mutegi, J. W. (2011). The inadequacies of "science for all" and the necessity and nature of a socially transformative curriculum approach for African American science education. *Journal of Research in Science Teaching*, 48, 301-316.

Reconceptualizing science content.

- Reconceptualizing science content requires a shift from an emphasis on standards-mandated content toward an emphasis on content deemed meaningful to students and teachers.
- Theoretical Grounding - it is especially illustrative of Codrington's (2014) commitment to liberatory practice. Through her questions, Codrington reminds us that
 - "systems of science [are] epistemologically and ontologically hegemonic in nature"
 - systems of science "perpetuate cycles of racism, colonialism, and Western values steeped in dominance over people and consumption of natural resources."

Reconceptualizing the role of the instructor.

- Reconceptualizing the role of the instructor requires a shift from a student-teacher relationship in which students and teachers work at cross-purposes toward a relationship characterized by joint productive activity.
- Theoretical Grounding - Goduka's (2005) notion of eZiko siPheka siSophula is translated as "gathering around the hearth to cook and dish out." Recall also that the collective and communal characteristic of this metaphor is reflected in the positionality of the participants "we cook" (siPheka) and "we dish out" (siSophula). eZiko emphasizes for us the idea that teachers and students should be working collectively to nurture and provide sustenance to the community.

To learn more see...

Mutegi, J. W., Morton, C. H., & Etienne, L. K. (2019). Reconceptualizing science education for learners of African descent. In G. M. Prime (Ed.), *Centering race in the STEM education of African American K-12 learners* (pp. 71-93). New York: Peter Lang.



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