



## **tara M. Nkrumah, PH.D.**

Division for Advancing Educator Preparation  
Mary Lou Fulton College for Teaching and Learning Innovation (MLFC)  
Arizona State University  
434A Farmer Education Building, 1050 South Forest Mall  
Tempe, AZ 85281  
Email: [tnkrumah@asu.edu](mailto:tnkrumah@asu.edu)  
ORCID: <https://orcid.org/0000-0002-4723-1944>

### **EDUCATION**

- Ph.D. Educational Leadership & Policy Studies  
University of South Florida, 2019
- M.Ed. Curriculum and Instruction  
Tennessee State University, 2000
- B.S. Environmental Science/Minor: Biology  
Middle Tennessee State University, 1995

### **PROFESSIONAL EXPERIENCE**

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|------------------------------|--|
| August 2022 – Present        | Assistant Professor<br>Division for Advancing Educator Preparation<br>Mary Lou Fulton College for Teaching and Learning Innovation<br>Arizona State University |
| January 2022 – December 2022 | Acting Executive Director<br>Center for Gender Equity in Science and Technology<br>School of Social Transformation<br>Arizona State University                 |
| May 2021 – December 2021     | Assistant Research Professor<br>Center for Gender Equity in Science and Technology<br>School of Social Transformation<br>Arizona State University              |
| July 2019 – May 2021         | Postdoctoral Fellow of Research Strategic Initiative   |

## RESEARCH INTERESTS

- Equitable Teaching and Learning in Science, Technology, Engineering, Mathematics (STEM) Education
- Culturally Relevant Science and STEM Education
- Critical Arts-Based Methodologies in Curriculum and Leadership Development

## PUBLICATIONS

### Peer-Reviewed Journal Articles

11. **Nkrumah, T.** (2024). Preparing cybersecurity camp facilitators to be culturally relevant mentor teachers. *Journal of STEM Education: Innovations and research*, 25(3), 55-63. *Impact Factor: 7.37*
10. **Nkrumah, T.** (2023). The inequities embedded in measures of engagement in science education for African American learners from a culturally relevant science pedagogy lens. *Education Sciences*, 19(7), pp. 739-763. <https://doi.org/10.3390/educsci13070739>, *Impact Factor: 3.48*
9. Roberts, L., **Nkrumah, T.**, Migueliz Valcarlos, M., & Agosto, V. (2022). Black women acting against the extremes of visibility in the academy. *Journal of African American Women and Girls in Education*, 2(2), 116-137.
8. **Nkrumah, T.** & Scott, K.A. (2022). Mentoring in STEM higher education: Synthesis of the literature to (re) present the excluded women of color. *International Journal of STEM Education*, 9(1), 1-23. <https://doi.org/10.1186/s40594-022-00367-7>, *Impact Factor: 5.789*
7. **Nkrumah, T.**, & Mutegi, J. (2022). Exploring racial equity in the science education journal review process. *Science Education*, 106(5), 1-15. <https://doi.org/10.1002/sce.21719>. *Impact Factor: 6.000*
6. Agosto, V., Roberts, L., Migueliz Valcarlos, M., **Nkrumah, T.**, Grosland, T, Bratspis, A., Warren, N. & Reynolds, E. (2021). Jokering bodies. *International Review of Qualitative Research* (IRQR). In the special issue Critical qualitative inquiry: Justice matters in en(tangled) times. Co-host edited by G. S. Cannella, M. Koro, M. F. Huckaby, J. Wolgemuth (Eds.). 14(4). <https://doi.org/10.1177/19408447211049508>. *Impact Factor: 2.257*
5. **Nkrumah, T.** (2021). Problems of portrayal: Hidden Figures in the development of science educators. *Cultural Studies in Science Education*, 16, 1-18. <https://doi.org/10.1007/s11422-021-10021-3>. *Impact Factor: 1.57*

4. Morton, T. R., & **Nkrumah, T.** (2021). A day of reckoning for the white academy: reframing success for African American women in STEM. *Cultural Studies of Science Education*, 16, 1-10. <https://doi-org.ezproxy1.lib.asu.edu/10.1007/s11422-020-10004-w>. *Impact Factor: 1.57*
3. Alsultan, J., Rice, M., Feldman, A., **Nkrumah, T.**, Ergas, S., & Ghebremichael, K. (2021). Biosand filters for water purification, *The Science Teacher*, 88(4), 41-46.
2. Roberts, L., **Nkrumah, T.**, Migueliz Valcarlos, M., & Agosto, V. (2021). Expanding and expounding upon forum theatre to engage specta-actors in virtual spaces. *Pedagogy and Theatre of the Oppressed Journal*, 6(1), 1-18.
1. Anderson, A. W., Branscombe, M., & **Nkrumah, T.** (2015). Crossing blocked thresholds: Three stories of identity, embodied literacy, and participatory education, *Journal of Language and Literacy Education*, 11(2), 170-185.

### **Peer-Reviewed Conference Proceedings**

5. Li, C., Solyst, J., Scott, S., Howse, G., **Nkrumah, T.**, Walker, E., ... & Stewart, A. E. (2025). "I am a Technology Creator": Black Girls as Technosocial Change Agents in a Culturally Responsive Robotics Camp. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (pp. 1-14).
4. Buddemeyer, A., Nwogu, J., Solyst, J., Walker, E., **Nkrumah, T.**, Ogan, A., Hatley, L., & Stewart, A. (2022). Unwritten magic: Participatory design of AI dialogue to empower marginalized voices. Upcoming in *Proceedings of the 2<sup>nd</sup> ACM International Conference on Information Technology for Social Good (GoodIT)*.  
<https://doi.org/10.1145/3524458.3547119>. *Acceptance rate: 43%*
3. **Solyst, J., Nkrumah, T.**, Stewart, A.E.B, Lee, J., Walker, E., & Ogan, A. (2022). Understanding instructors' cultivation of connectedness in K-12 online synchronous culturally responsive STEM and computing education. *Proc. ACM Hum.-Comput. Interact.* 6, CSCW2. Article 339, 19 pages. <https://doi.org/10.1145/3555759> *Acceptance rate: 25.5%*
2. **Solyst, J., Nkrumah, T.**, Stewart, A.E.B, Lee, J., Walker, E., & Ogan, A. (2022). Running an online synchronous culturally responsive computing camp for middle school girls. *The 27<sup>th</sup> annual conference on Innovation and Technology in Computer Science Education (ITiCSE)*, 158-164. <https://doi.org/10.1145/3502718.3524747>. *Acceptance rate: 34%*
1. Solyst, J., **Nkrumah, T.**, Stewart, A., Buddemeyer, A., Walker, E., & Ogan, A. (2022, March). Insights from virtual culturally responsive computing camps. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2* (pp. 1119-1119). <https://doi.org/10.1145/3478432.3499136>. *Acceptance rate: 34%*

### **Edited Books, Book Chapters and Contributions to Books**

4. Dalal, M., **Nkrumah, T.**, Kouo, J., & Klein-Gardner (2024). Examining teacher perspectives of gender stereotyping in pre-college engineering education. In C. Craig (Ed.), *Mentoring in STEM Through a Female Identity Lens*, Wilmington, DE: Vernon Press.
3. Roberts, L, Migueliz Valcarlos, M., **Nkrumah, T.**, & Agosto, V. (2022). Acting out: Facilitating dialogue for anti-oppressive leadership: In K. Brown, S. Rodriguez, & R. Papa (2022). *Recipes to combat the isms: A guidebook for educational leadership preparation programs*. Vol. 2 (pp. 53-63). Lulu Publishing.
2. Miles Nash, A., **Nkrumah, T.**, Ottley, R. G., Mason Peeples, K., & Pierre, D. (2022). Sankofa sisters: Returning to sisterhood to secure our progress. In D. J. Davis, D. Davis-Maye, T. Bertrand Jones, & J. Andrew, (Eds.), *Black Sisterhoods: Black Womyn's Representations of Sisterhood Across the Diaspora*. Bradford, ON: Demeter Press.
1. **Nkrumah, T.**, Agosto, V., Feldman, A., & Bradley, F. (2020). From “WASH” to WEAVE: Leadership Mentoring Against Racial Microaggression. In Cobb-Roberts, D., & Esnard, T. (Eds.). *Mentoring as critically engaged praxis: Storying the live and contributions of Black women administrators*. Information Age Publishing.

### **Book Reviews**

1. **Nkrumah, T.** (2021, November 1). A review of *culturally and linguistically diverse learners and STEAM* by Pamela Spycher and Erin F. Haynes. *Teachers College Record*, Retrieved from <https://www.tcrecord-org.ezproxy1.lib.asu.edu> ID Number: 23891

### **Public Intellectual Writings and Commentaries**

**Nkrumah, T.** (2016). The legacy of Imah in my life as a science educator, Blog – Christine Sleeter, [www.christinesleeter.org](http://www.christinesleeter.org)

### **In Press and Under Review in Peer-Reviewed Journals**

#### **In Press**

**Nkrumah, T.** (2025). Seeing Things Differently: Performing ADDISON. TQR special issue: “Goodbye to All That!: A Living Inquiry”

#### **Under Review**

**Nkrumah, T.** (Under Review). “But I Feel Like Everybody Needs to Know About It”: Theatre of the Oppressed as a Catalyst for Sociopolitical Consciousness in Science Education.

Roland, E., **Nkrumah, T.**, & Stewart, A. (Under Review). Facilitating Racial Dialogues as University Researchers with Out-of-School Time Educators.

#### **In Progress**

**Nkrumah, T.,** Roland E., & Stewart, A. (In Progress). From Awareness to Action: Lessons on Race and Racism in AI Educator Professional Development

#### NATIONAL CONFERENCE PRESENTATIONS (PEER-REVIEWED)

**Nkrumah, T. & Bohn, E.** (April 2026). *Stagecrafting Change: Socio-Politically Conscious Professional Development for Science Educators*. Symposium Session. American Educational Research Association, Los Angeles, Ca.

**Nkrumah, T.,** Roland, E., Bohn, E. (November 2025). *Collaborative Partnerships for Equitable Reform*. University Council of Educational Administration Conference, San Juan, Puerto Rico.

**Nkrumah, T.** (September 2025). *Cracking the STEM Code: Strategies to Boost Participation*. Interactive Learning Session. STEM Exchange, Department of Defense STEM Consortium, Washington, DC.

**Nkrumah, T.** (April 2025). *Culturally relevant pedagogy and Theatre of the Oppressed: An equity centered science teacher professional development*. Roundtable Session. American Educational Research Association, Denver, Co.

**Nkrumah, T.** (March 2025). *Developing Science Equity Ambassadors to Tackle Inequities in Science/STEM Education*. Stand-alone paper presentation. NARST A global organization for improving science education through research, National Harbor, MD.

**Nkrumah, T.** (November 2024). *Professional Development for Science Teachers: Advancing Culturally Relevant Pedagogy for Inclusive Science Education*. The 16th IAFOR Asian Conference on Education, Tokyo, Japan.

**Nkrumah, T.** (November 2024). *Equitable Teaching through Culturally Relevant Professional Development: Preparing Cybersecurity Facilitators as Culturally Relevant Mentor Teachers*, University Council of Educational Administration Conference, Los Angeles, CA.

Roberts, L., Migueliz-Valcarlos, M., **Nkrumah, T.,** Agosto, V. (November 2024). *Staging the Scene for Justice-Oriented Leadership: 3,2,1 Action (Plan)!* University Council of Educational Administration Conference, Los Angeles, CA.

Agosto, V., Migueliz Valcarlos, M., **Nkrumah, T.,** & Roberts, L. (April 2024). Non-Joking Matters: The Ethics of Performance-Based Research. In the symposium Practical Ethics for Arts-Based Researchers. American Educational Research Association, Philadelphia, PA.

Roberts, L., Migueliz-Valcarlos, M., **Nkrumah, T.,** Agosto, V. (November 2023). *Spect-Actors: Expanding the Court of Public Opinion to Lead Education*, University Council of Educational Administration Conference, Minneapolis, MN.

**Nkrumah, T.**, Mutege, J.W. (April 2023). *Science Lead Educators and Racial Equity: An investigation of the Journal Review Process*. Paper Presentation. American Educational Research Association, Chicago, IL.

Roberts, L., Migueliz-Valcarlos, M., **Nkrumah, T.**, Agosto, V. (November 2022). *Performing Leadership: Practicing Facilitation, Deliberation, and Democratic Education*, University Council of Educational Administration Conference, Seattle, WA.

**Nkrumah, T.**, Migueliz-Valcarlos, M., Roberts, L., Agosto, V., Aguilera, C. (November 2022). *Acting Out: Critical Dialogue for Anti-oppressive Education*, The International Conference on Urban Education, Cancun, Mexico.

De Los Santos, S., Carbonell, A., Ong, M., Cassidy, M., **Nkrumah, T.**, Scott, K.A. (June 2022). *USA Rural High School Students Creating Safe Spaces to Develop Community-Focused Techno-Social Projects*, The Paris Conference on Education, Education and New Developments (END), Paris, France.

**Nkrumah, T.**, Scott, K.A. (March 2022). *“Tech”ualizing Culturally Responsive Computing with White Rural Teachers*. Eastern Sociological Society, Boston, MA.

Solyst, J., **Nkrumah, T.**, Stewart, A., Buddemeyer, A., Walker, E., Ogan, A. (March 2022). *Insights from Virtual Culturally Responsive Computing Camps*. The 2022 ACM Technical Symposium on Computer Science Education (SIGCSE), Providence, RI.

**Nkrumah, T.**, Scott, K.A., Jensen, B. (January 2022). *Culturally Responsive Mentor Teacher Professional Development: Kama’āina girls’ STEM camp for social change*. The 7th IAFOR International Conference on Education, Honolulu, HI.

**Nkrumah, T.** (February 2021). *Promoting Diversity, Equity, Inclusion in STEM: A Culturally Responsive Computing Framework*. Conference on Religion, Ethics & Science (CORES) 2021.

**Nkrumah, T.** (March 2020). *U.S. and Ghana: Exploring Cross-Cultural Perspectives on Engagement in Science for Underrepresented Students*. NARST A worldwide organization for improving science teaching and learning through research, Portland, OR. (Conference canceled)

Zeidler, D., Herman, B., Kinskey, M., Willis, S., Wickman, K., Mitchell, M., Applebaum, S., **Nkrumah, T.** (March 2020). *Identifying Socioscientific Orientations in the Context of Socioscientific Issues*. NARST A worldwide organization for improving science teaching and learning through research, Portland, OR. (Conference canceled)

Zeidler, D., Herman, B., Kinskey, M., Mitchell, M., Wickman, K., **Nkrumah, T.**, Willis, S., Applebaum, S. (January 2020). *Influencing Students’ Social and Moral Compassion Through Socioscientific Issues*. Association for Science Teacher Education, San Antonio, TX.

**Nkrumah, T.** (September 2019). *Weaved Journeys: Life Writings of Leading and Engaging in Science Education*. Arizona Postdoctoral Research Conference, Phoenix, AZ.

**Nkrumah, T.** (April 2019). *Jokering Performance Engagement: Awakening Science Students' Critical Consciousness Development for Social Change*. American Educational Research Association, Toronto, Canada.

**Nkrumah, T.** (January 2019). *Transforming Data Through Literary Métissage: Learning Science Educators' Leadership/Followership Style Toward Engagement in Science Education*. TheQualitative Report, Fort Lauderdale, FL.

**Nkrumah, T.** (November 2018). "*Worker or Leader*": *A Critical Media Analysis of Hidden Figures*. Symposium on *Black Women in Educational Leadership: Recovering Hidden Figures, Reclaiming Intersectionality, and Revolutionizing Leadership Praxis*. University Councils for Educational Administration, Houston, TX.

Edwards, D., Khalil, D., Miles Nash, A. & **Nkrumah, T.** (November 2018). *Black Women in Educational Leadership: Recovering Hidden Figures, Reclaiming Intersectionality, and Revolutionizing Leadership Praxis*. Symposium for the Annual Convention of the University Councils for Educational Administration, Houston, TX.

**Nkrumah, T.,** Zeidler, D., Applebaum, S., Mitchell, M., Weitz, M., Willis, S., & Wikman, K. (March 2018). *Socioscientific Issues: Teaching and learning in an evolving context*. NARST A worldwide organization for improving science teaching and learning through research, Atlanta, GA.

**Nkrumah, T.,** Warren, N., Agosto, V., Bratspis, A., Migueliz Valcarlos, M., Reynolds, E., Roberts, L., & Grosland, T. (March 2018). *Embodied apprehensions: Jokering and brokering physical engagement*. The Student Organization on Qualitative Methodologies, Tampa, FL.

**Nkrumah, T.,** Zeidler, D., Applebaum, S., Mitchell, M., Weitz, M., Willis, S., & Wikman, K. (January 2018). *Teaching socioscientific issues in an evolving context*. Association for Science Teacher Education, Baltimore, MD.

**Nkrumah, T.,** Agosto, V., Bratspis, A., Migueliz Valcarlos, M., & Aguilera, C. (January 2018). *Embodied apprehensions: Jokering and brokering physical engagement*. The Qualitative Report, Fort Lauderdale, FL.

**Nkrumah, T.,** Agosto, V., Bratspis, A., & Aguilera, C. (November 2017). *Embodied apprehensions: Jokering and brokering physical engagement*. University Council of Educational Administration Conference, Denver, CO.

**Nkrumah, T.** (November 2017). *Reimagining school leadership and student voice: A sociocultural perspectives model for science curriculum and pedagogy*. University Council of Educational Administration Conference, Denver, CO.

**Nkrumah, T.** (April 2017). *African American students' perceptions of science education: What they really think*. NARST A worldwide organization for improving science teaching and learning through research, San Antonio, TX.

**Nkrumah, T., Willis, S.** (April 2017). *Science education for all: Addressing issues of equity and social justice through SSI*. NARST A worldwide organization for improving science teaching and learning through research, San Antonio, TX.

**Nkrumah, T., Salaam, O.J., Agosto, V., Willis, S.** (April 2017). Juried ethnodramatic performance of “*Goodbye to all that!*” Staged as part of the symposium ‘*Using an Ethnodramatic Case to Discuss Teaching and Learning in Schools Serving Vulnerable Youth.*’ for the Interdisciplinary Symposium on Qualitative Methodologies University of South Florida. Cynthia Lubin Langtiw, Discussant. Tampa, FL.

**Nkrumah, T., Dhillon, S. K., Roland, E.** (November 2016). *De-essentializing women of color: A tri-autoethnographical analysis of a social justice educational leadership doctoral program*. University Council of Educational Administration Conference, Detroit, MI.

**Nkrumah, T., Salaam, O.J., Agosto, V., Roland, E.** (November 2016). Juried ethnodramatic performance of “*Goodbye to all that!*” Staged as part of the symposium ‘*Using an Ethnodramatic Case to Discuss Teaching and Learning in Schools Serving Vulnerable Youth.*’ for the Annual Conference of the University Council of Educational Administration. Anjalé Welton, Tiffany Harris & Stella Resko, Chairs. Detroit, MI.

**Nkrumah, T., Dhillon, S. K., Roland, E. and Agosto, V.** (October 2016). *Through sisterhood: Navigating intersectionality and transformative leadership*. Curriculum and Pedagogy Conference, Cleveland, OH.

**Nkrumah, T., Agosto, V., & Bratspis, A.** (May 2016). *Transformative theatre: Engaging image theatre as theory, practice and research –Interactive Session*. International Congress of Qualitative Inquiry, Champaign, IL.

**Nkrumah, T., Anderson, A. W., & Branscombe, M.** (February 2015). *Crossing blocked thresholds: Three stories of identity, embodied literacy, and participatory education*. University of Georgia Embodied and Participatory Literacies: Inspire, Engage, Create, and Transform Conference. Atlanta, GA.

## KEYNOTES & FEATURED ADDRESSES

**Nkrumah, T.** (April 2024). *Unmasking the “Isms” in STEM Education to Promote Equitable Teaching and Learning*. Center for the Advancement of Teaching, Temple University, Philadelphia, PA.

**Nkrumah, T.** (July 2022). *Emphasizing (Me)ntal Health*. African American Reconstruction 2<sup>nd</sup> Annual Teen Conference at the Shoen Family Conference and Fitness Center, Phoenix, AZ.



**Nkrumah, T.** (July 2022). *Culturally Relevant “STEM” Pedagogy = Equity*. Learning Undeafed Mobile Laboratory Coalition Conference at Courtyard Gaithersburg Hotel at Washingtonian Center.

**Nkrumah, T.** (June 2022). *Choosing Culturally Relevant Pedagogy in Spite Of...* Minding the Gap Summit at [Citizen Schools](#).

**Nkrumah, T.** (March 2022). *How did I get here?* Women in STEM Careers Program for Women’s History Month at Rio Salado Community College.

**Nkrumah, T.** (September 2021). *Voices in STEAM: A Changemaking Conversation*. Equity in STEAM Scholarship Initiative with Intel – YWCA Phoenix.

**Nkrumah, T.** (July 2021). *Go Back and Get What You Need*. Presentation at the African American Reconstruction Teen Conference at George Gervin Preparatory Academy, Arizona.

**Nkrumah, T.** (April 2021). *I can be whatever I want to be*. Presentation at the Black African Convocation at Arizona State University.

**Nkrumah, T.** (February 2020). *(Re)imaging STEM Teacher Professional Development*. Presentation at the Equity Exchange at Arizona State University.

**Nkrumah, T.** (December 2019). *Learning From the Lived Experience, Past, Present, Future*. Presentation at the Black African Convocation at Arizona State University.

## INVITED PRESENTATIONS, WORKSHOPS, & PANELS

**Nkrumah, T.** (September 2024). *Developing an awareness of culturally diverse practices in education*. Open Door at Arizona State University. ASU Downtown Campus.

**Nkrumah, T.** (August 2023). *Equity Research in the Science Journal Review*. RTI Presentation. Virtual presentation on Equity Talk.

**Nkrumah, T.** (June 2023). *Culturally Relevant Pedagogy Professional Development*. Co-facilitation using Theatre of the Oppressed to promote equity in STEM with secondary school STEM teachers, San Antonio, TX.

**Nkrumah, T.** (April 2023). *Cultivating a Culturally Relevant Mindset in STEM Education*. Presentation at the 2024 FIRST Championship, Houston, TX.

**Nkrumah, T.** (March 2023). *Theatre of the Oppressed K-12 STEM Educator Workshop*. Interactive presentation using Augusto Boal’s theory to address forms of oppression in STEM education, Pittsburgh, PA.

**Nkrumah, T.** (February 2023). *Understanding equity as a verb in education*. MLFTC TEL 171 Freshman Sociocultural Presentation. Virtual presentation on Equity Talk.

**Nkrumah, T.** (February 2023). *Addressing the Barriers to Equity in STEM Education*. Presentation at the Defense Science, Technology, Engineering, and Mathematics Education Consortium (DSEC) STEM Technical Exchange. Presentation using Theatre of the Oppressed. Washington, DC.

**Nkrumah, T.** (November 2022). *Culturally Relevant Pedagogy for All: A school counselors' guide to enacting equity in STEM education*. Virtual presentation at the National Center for Women and Information Technology (NCWIT), Boulder, Colorado.

**Nkrumah, T.** (August 2022). *Defining Success for You*. Virtual presentation at the Coding Camp for Youth of Color, Morgan State University.

**Nkrumah, T.** (May 2022). *Global and Intercultural Fluency*. Panel discussion for the Young Professionals (YP) CoNext@ASU, virtual event.

**Nkrumah, T.** (April 2022). *Stand Against Racism*. Moderator for a panel discussion for the YWCA Metro Phoenix event with four guest speakers, University of Phoenix.

**Nkrumah, T.** (March 2022). *Being Accountable in the Central Arizona Phoenix Long Term Ecological Research (CAP-LTER) Community to Advancing Diversity, Equity, Inclusion, and Justice*. Presentation at the Twenty-fourth Annual All Scientists Meeting and Poster Symposium, ASU Skysong.

**Nkrumah, T.** (March 2022). *Culturally Relevant for Whom?* Presentation at the Defense Science, Technology, Engineering, and Mathematics Education Consortium (DSEC) Quarterly Meeting.

**Nkrumah, T.** (November 2021). *STEM Girls Change the World*. Presentation at [Project Scientist](#) inaugural STEM event.

**Nkrumah, T.** (October 2021). *Culturally Responsive Practices for Gender Equity in STEM*. Presentation at Arizona State University Mary Lou Fulton Teaching College on Inclusivity Matters: Creating Culturally Responsive Environments.

**Nkrumah, T.** (June 2021). *Learning the Art of Culturally Responsive Computing with Cybersecurity Curriculum*. Presentation at the Cyber Education Discovery Forum at [Cyber.org](#).

**Nkrumah, T.** (April 2021). *Women in Academia*. NARST Graduate Student Forum Roundtable Discussion. Facilitators: Erin Peters-Burton, Deb Morrison, Tara Nkrumah.

**Nkrumah, T.** (February 2021). *Black History Month Forum*. Panel Discussion at ASU NAACP State of Our Nation.

**Nkrumah, T.** (February 2021). *Black History Celebration*. Presentation at Central Florida Aerospace Academy of Kathleen High School.

**Nkrumah, T.** (February 2021). *Culturally Responsive Practices for Gender Equity in STEM*. Presentation at Arizona State University Mary Lou Fulton Teaching College on Demonstrating Cultural Intelligence Across Diversities workshop.

**Nkrumah, T. & Supriya** (October 2020). *Past, present, and imagining the future: (Re)purposing STEM research, curriculum, pedagogy*. Presentation at Arizona State University RISE up for racial justice in SOLS workshop.

**Nkrumah, T.** (November 2020) Guest Lecturer, Culturally Responsive Teaching/Theatre of the Oppressed (master's level course): using Paulo Freire's philosophy with Augusto Boal's gaming activities to demonstrate the implementation of culturally responsive praxes when working with under-resourced communities. Conducted in *Planning, Implementation, Evaluation of Social Pedagogy Programs*, Arizona State University, Tempe.

**Nkrumah, T., Basham, S., Grosland, T.** (March 2019) (workshop): Mentoring high school girls from diverse communities in the Tampa Bay Area to lead social change entitled *Stepping Up, Speaking Out, and Disrupting Silence*. Conducted at the 11<sup>th</sup> Annual Tampa Bay Young Women's Leadership Symposium, The University of Tampa.

**Nkrumah, T., Grosland, T.** (February 2019) (workshop): Professional development training on mentoring and coaching educational leaders entitled *Changing Leaders, Changing Times: Warming a "Chilly" Workplace and Retaining Your Talent*. Conducted in *Professional Learning Alliance*, University of South Florida.

**Nkrumah, T.** (February 2019) Pedagogy of the Oppressed/Theatre of the Oppressed workshop (doctoral level course): using Paulo Freire's philosophy with Augusto Boal's gaming activities to enact image theatre. Conducted in *Curriculum Foundations*, University of South Florida.

**Nkrumah, T.** (November 2018) Pedagogy of the Oppressed/Theatre of the Oppressed workshop (master's level course): using Paulo Freire's philosophy with Augusto Boal's gaming activities to enact image theatre. Conducted in *Curriculum Foundations*, University of South Florida.

**Nkrumah, T., Bratspis, A.** (doctoral level course) (March 2017): Pedagogy of the Oppressed/Theatre of the Oppressed workshop using Paulo Freire's philosophy with Augusto Boal's gaming activities to enact image theatre. Conducted in *Curriculum Analysis*, University of South Florida.

**Nkrumah, T., Bratspis, A., & Agosto, V.** (July 2017) (doctoral level course): Pedagogy of the Oppressed/Theatre of the Oppressed workshop using Paulo Freire's philosophy with Augusto Boal's gaming activities to enact image theatre. Conducted in *Appreciative Inquiry and Organizing in Public Education*, University of South Florida.

**Nkrumah, T.** (June 2017) Pedagogy of the Oppressed/Theatre of the Oppressed workshop (doctoral level course): using Paulo Freire's philosophy with Augusto Boal's gaming activities to enact image theatre. Conducted in *Curriculum Theory*, University of South Florida.

**Nkrumah, T.,** Salaam, O.J., Roland, E., Willis, S. (doctoral level course) (October 2017): Ethnodramatic community performance 'Goodbye to all that!' *An accomplished teacher's last year in the Chicago Public Schools*. Conducted in *Curriculum Theory*, University of South Florida.

**Nkrumah, T.** (February 2016). *The legacy of Imah in my life as a science educator*, Critical Family History –Dr. Christine Sleeter, Tampa, FL.

**Nkrumah, T.** (November 2016) Presentation of Study (Doctoral Course): *Science education: A descriptive case study of African American students' perceptions*. Conducted in *Qualitative Methods #2*, University of South Florida.

**Nkrumah, T.** (May 2015). *Women's Leadership in Doctoral Education & Careers in Academia*. University of South Florida, Tampa, FL.

## GRANTS & AWARDS

**Amount Requested** (\$25, 247, 513)

**Amount Awarded** (\$5,232,339)

Chen, Y. (PI), Jordan, M. (Co-PI), **Nkrumah, T. (Co-PI)**, Holton, A. (Under-Review). *Professional Learning for Navigating Uncertainty in Science Classrooms: Cultivating Student Struggle and Agency*. National Science Foundation / \$749,637.

**Nkrumah, T.** (PI), Bohn, E. (Co-PI). (August 2024 – August 2026). *Culturally Relevant STEM Education and Theatre of the Oppressed for K-12 STEM Educators and Adolescent Youth of Color*. Defense STEM Education Consortium / \$750,000 Awarded.

**Nkrumah, T.** (PI), Roland, E. (Co-PI), Stewart, A. (Co-PI). (October 1, 2023 – September 30, 2028). Collaborative Proposal: *Black girls as Creators: an intersectional learning ecosystem toward gendered racial equity in Artificial Intelligence education*. National Science Foundation / \$3,206,383 Awarded.

**Nkrumah, T.** (PI). (September 2023). Yr4: *Culturally Relevant STEM Professional Development for K-12 for Teachers*. Defense STEM Education Consortium / \$250,956 Awarded.

**Nkrumah, T.** (PI) (September 2023). Yr4 Innovation Bloc C Pathway *Cultivating STEM Equity Ambassadors to Address Inequities in STEM Education*. Defense STEM Education Consortium / \$525,000 Awarded.

**Nkrumah, T. (Co-PI)** & Esparza, D. (PI). (August 2022). New Schools Venture Fund. *Racial Equity in Action and Learning (REAL) Theory of Change (TOC) and STEM Education* / \$75,000 - \$250,000 (Declined).

**Nkrumah, T. (PI)**, Fojas, C. (Co-PI). (September 2022). Yr3 *COMPUGIRLS Cybersecurity: A Culturally Responsive Collective Impact Model*. Defense STEM Education Consortium / \$250,000 Awarded.

**Nkrumah, T. (PI)**, Scott, K.A. (Co-PI). (September 2022). Yr3 Innovation Bloc C Pathway for *A Culturally Relevant/Responsive Professional Development Preparation in STEM*. Defense STEM Education Consortium / \$399,002 (Declined).

**Nkrumah, T. (Co-PI)**, Scott, K.A. (PI). (September 2021). Yr2 *COMPUGIRLS Cybersecurity: A Culturally Responsive Collective Impact Model*. Defense STEM Education Consortium / \$250,000 Awarded.

**Nkrumah, T. (Co-PI)**, Scott, K.A. (PI), Coley, B., Roscoe, R. (April 2021). *COMPUGIRLS Around the World: Transforming Technology Ecosystems Through Technosocial change Agents*. Impact Challenge for Women and Girls / Google.org / \$2,000,000 (Declined).

Scott, K.A. (PI), Brown, L. (Co-PI), Kalipi, D. (Co-PI), Roscoe, R., Dorios, S., White, M., Simeone, M., **Nkrumah, T.** (March 2021). *Building Systems Maps with Girls of Color Becoming Technosocial Leaders*. Racial Equity 2030 / Kellogg / \$20,000,000 (Declined).

Hughes, R., Rankin, Y., Leornard, J., Joseph, N., **Nkrumah, T. (Co-PI)** (January 2021). *Developing a Coding Identity Framework to Guide Informal Coding Educational Programs*. National Science Foundation (NSF) Advancing Informal Science Learning (AISL) / \$2,000,000 (Declined).

Nkrumah, T. **PI** (July 2020). Spencer Foundation Small Grants. *Cultivating Adolescent Girls' of Color Physical Activity, Civic Engagement, and STEM Identity: Exploring the Impact of Culturally Responsive Pedagogy with Theatre of the Oppressed* / \$50,000 (Declined).

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|------|---|
| 2019 | Research Fellowship, Kwame Nkrumah University of Science and Technology, Ghana, National Science Foundation (NSF) |
| 2019 | Walter and Lillian Berbecker Scholarship, College of Education, University of South Florida                       |
| 2018 | Walter and Lillian Berbecker Scholarship, College of Education, University of South Florida                       |
| 2018 | Diversity Educator of the Year Award, Hillsborough County School District   |

2017	Jhumki Basu Scholar, National Association for Research in Science Teaching National Association for Research in Science Teaching (NARST)
2016-19	Highly Effective Teacher Status multiple years, Hillsborough County School District
2015-17	Scholars of Excellence Honoree multiple years, Graduate Student Office, University of South Florida
2015	Graduate Student Success (GSS) Fellowship Recipient, Graduate Student Office, University of South Florida
2004	Master Teacher Status, Dallas Independent School District

## TEACHING

### **Undergraduate Courses Taught, Arizona State University**

Fall 2022 – Present: TEL 212: Understanding the Culturally Diverse Learner

### **Master of Education capstone projects advised, Arizona State University (4 total):**

Fall 2021	2 students
Spring 2022	2 students

### **Master of Science Education practicum supervisor, University of South Florida (2 total):**

Fall 2017	1 student
Spring 2018	1 student

### **Master of Educational Leadership and Policy Studies assistant instructor, University of South Florida**

Summer 2018	26 students
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### **Dissertation/Thesis Committees [\* denotes committee member]**

February 2025	*Trevor Johnston, Ed.D, Leadership and Innovation (Arizona State University)
November 2024	*Kiya Slater, Ph.D. International Psychology (The Chicago School)

### **Masters**

April 2024	*Samantha Briggs, MFA, <i>Drama-Based Practices for Critical Literature Instruction in the Secondary ELA Classroom</i> , MFA Theatre for Youth and Community.
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## REVIEWER ACTIVITIES

*Invited Reviewer*, Journal of Women and Minorities in Science and Engineering (2021)

*Panel Reviewer*, National Science Foundation (NSF) (2020 – present)

*Invited Reviewer*, Science Education (2020 – present)

*Proposal Reviewer*, AERA SIG – Critical Issues in Curriculum and Cultural Studies (2019 – present)

*Proposal Reviewer*, Association for Science Teacher Education (ASTE) – Equity and Diversity (2019)

*Student Reviewer*, Journal of Cases in Educational Leadership (JCEL) (2018)

*Proposal Reviewer*, AERA Division B – Curriculum Studies (2018 – present)

*Proposal Reviewer*, AERA Division B – Histories and Futurities (2018 – present)

*Proposal Reviewer*, NARST *A global organization for improving science education through research* (2017 – present)

## PROFESSIONAL SERVICE

*Co-Coordinator for Strand 5 – College Science Teaching and Learning*, NARST *A global organization for improving science education through research*, 2023 - 2025

*Presider*, NARST *A global organization for improving science education through research*, 2020

*Chair/Discussant*, American Educational Research Association (AERA), 2019

*Program Representative*, University of South Florida Graduate Student Council, 2018 – 2019

*Committee Member*, Ethics & Equity for National Association for Research in Science Teaching (NARST), 2018 - 2022

## CAMPUS SERVICE

### University Service

Fall 2023 – 2026

*Committee Member*, Curriculum Review Committee, Arizona State University (ASU) Mary Lou Fulton College for Teaching and Learning Innovation

Spring 2023 – present	<i>Member, Central Arizona – Phoenix Long-Term Ecological Research, ASU</i>
Fall 2020 – present	<i>Committee Member, Central Arizona Phoenix (CAP) Justice, Equity, Diversity, and Inclusion, ASU.</i>
Spring 2020 – 2022	<i>Co-Chair, Early Career Research Network (ECRN), ASU</i>
Fall 2019	<i>Panelist, Black Graduate Student Association Tips on Completing Graduate Studies, ASU</i>
Fall 2016, 2017, 2018	<i>Discussant for Graduate Student Association Orientation, University of South Florida</i>
Fall 2015	<i>Discussion Facilitator for Dr. Paul Gorski, University of South Florida</i>
<u>Program Service</u>	
Fall 2021 – Spring 2022	<i>Search Committee Chair, Postdoctoral Research Scholar, Center for Gender Equity in Science and Technology,</i>
<u>Community Service</u>	
2022 – 2024	<i>Board Member Co-Chair, YWCA Metropolitan Phoenix,</i>
2021 – present	<i>Scholarship Reviewer, Arizona Community Foundation,</i>
2020 – present	<i>Board Member, YWCA Metropolitan Phoenix,</i>

## NATIONAL, STATE, AND LOCAL COMMUNITY ENGAGEMENT

*Expert Panelist* (February 2021). *Diversity, Equity, Inclusion in STEM*. Black History Month LEAD Her Virtual Summit at Intel – Ocotillo, Arizona.

*Expert Panelist* (February 2020). *I Know Who I Am*. Presentation at Women’s Lead Her Power Summit at Intel – Ocotillo, Arizona

*Facilitator* (September 2019), Culturally Responsive Teaching in STEM for historically marginalized students (staff): using Paulo Freire’s philosophy with Augusto Boal’s gaming activities to train the staff on enacting culturally responsive practices. Conducted at the Arizona Science Center, Phoenix, AZ.

## PROFESSIONAL AFFILIATIONS



American Educational Research Association  
Alliance of Arizona Nonprofit  
Association for Science Teacher Educators  
National Association for Research in Science Teaching  
University Council for Educational Administration

## **PRIOR WORK EXPERIENCE**

### **Field Researcher**

University of South Florida

NSF International Research Experience for Students (IRES) Program Track I:

US-Ghana Collaboration: Providing Opportunities for Global Research on Water Sanitation and Hygiene

Spring 2019 – Summer 2019

- Assisted in the implementation of participatory action-research focused on designing biosand filters
- Created culturally responsive curriculum for after-school program
- Co-wrote research reports and articles for peer-reviewed science journals
- Established partnerships with three local schools in Kumasi, Ghana

### **Project Manager**

University of South Florida/Polk County Florida, Master of Educational Leadership Schools of Hope – Whole School Transformation Model (Traditional Public Schools)

Summer 2018 – Summer 2019

- Co-taught culturally relevant leadership courses
- Mentored/coached in-service teachers in culturally responsive practices
- Co-wrote reports

### **Subject Area Leader and Instructional Coach, Science Teacher**

Greco Middle School, Tampa, Florida

Fall 2014 – Spring 2019

- Wrote culturally relevant science curriculum
- Coached science teachers in culturally responsive practices
- Conducted school wide culturally responsive professional development workshops

### **Science Teacher, Curriculum Writer, Middle Years Program (MYP)/International Baccalaureate (IB) Program**

Lincoln Community School, Accra, Ghana

Fall 2007 – Spring 2014

- Wrote culturally relevant science curriculum for grades 6-10
- Conducted culturally relevant professional development sessions
- Engaged in building community relations with parents and government leaders
- Supervised and judged MYP personal projects for grade 10 students
- Organized the International Day celebrations
- Co-organized the Earth Day celebrations

## **CERTIFICATIONS**

Texas State Board of Education, Secondary Biology (6-12) years

Florida State Board of Education, Secondary Biology (6-12) years