Stanford



Bryan Brown

Kamalachari Professor of Science Education and Senior Associate Vice Provost, Stanford Provostial Fellows Program

Graduate School of Education

CONTACT INFORMATION

- **Admin. Support**

  John Baker

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Bio

BIO

Bryan A. Brown is the Kamalachari Professor of Science Education, and a professor of teacher education. His research interest explores the relationship between student identity, discourse, classroom culture, and academic achievement in science education. He focuses on the social connotations and cultural politics of science discourse in small-group and whole-group interaction. Additionally, his research work in science education examines how teacher and student discourse serve to shape learning opportunities for students in science classrooms. Dr. Brown's work in science education in urban communities focuses on developing collaborative curricular cycles and classroom pedagogy based on developing discourse intensive instruction for urban learners. His research has expanded beyond his focus on science education, to include issues of college access in urban communities. His recent work explores how classroom and school culture shapes access to higher education. He conducts mixed methodological work exploring how race, language, and culture impact students learning in urban science classrooms.

ACADEMIC APPOINTMENTS

- Professor, Graduate School of Education

ADMINISTRATIVE APPOINTMENTS

- Associate Professor, Graduate School of Education, Stanford University, (2003- present)
- College Director, Freshman Sophomore College, Stanford University, (2019- present)
- Professor, Graduate School of Education, Stanford University, (2021- present)
- Kamalachari Professor of Science Education, Graduate School of Education, Stanford University, (2024- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- ., Long Beach Unified School District (1996 - 2001)
- Visiting Professor, Michigan State University (2002 - 2003)

PROGRAM AFFILIATIONS

- Center for Comparative Studies in Race and Ethnicity (CCSRE)

PROFESSIONAL EDUCATION

- BS, Hampton University , Biology (1996)
- MA, University of California, Santa Barbara , Education- Science Education (1999)
- PhD, University of California, Santa Barbara , Education- Science Education (2002)

Research & Scholarship

RESEARCH INTERESTS

- Classroom Discourse and Interaction
- Culturally Responsive Pedagogies
- Digital, Media & Multimodal Literacies
- Educational Inequality
- Learning Technologies
- Postsecondary Access
- Race, Language, and Sociolinguistics
- Science Education
- Urban Education
- Youth Identity, Agency, and Voice

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Brown's current research examines issues of stress, culture, and language. His work examines how science is taught is ways that may alienate urban students due to the approach to language instruction. This work includes experimental work involving technology based education and inner city teaching practices.

Teaching

COURSES

2026-27

- Curriculum and Instruction in Science: EDUC 267B (Aut)
- Science, Engineering and Technology Education Seminar: EDUC 359C (Spr)

2025-26

- Curriculum and Instruction in Science: EDUC 267A (Sum)
- Curriculum and Instruction in Science: EDUC 267B (Aut)
- Research in Science, Engineering, & Tech Ed: Teacher Learning With and From Curriculum Materials: EDUC 359B (Spr)

2024-25

- Curriculum and Instruction in Science: EDUC 267A (Sum)
- Curriculum and Instruction in Science: EDUC 267B (Aut)
- Science, Engineering and Technology Education Seminar: EDUC 359C (Aut)

2023-24

- Curriculum and Instruction in Science: EDUC 267A (Sum)
- Curriculum and Instruction in Science: EDUC 267B (Aut)

- Science, Engineering and Technology Education Seminar: EDUC 359C (Aut)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Lisa Archuleta

Doctoral Dissertation Co-Advisor (AC)

Brandi Cannon, Derric Heck

Doctoral (Program)

Lisa Archuleta, Brandi Cannon, Liz Harris, Derric Heck, Laurence Tan

Publications

PUBLICATIONS

- **Mentoring across differences in science education: Applying a brokering framework** *SCIENCE EDUCATION*
  Haverly, C., Brown, B. A.
  2022
- **Seeing a science of her own: intersectionality in the age of denial** *CULTURAL STUDIES OF SCIENCE EDUCATION*
  Brown, B. A.
  2022
- **A technological bridge to equity: how VR designed through culturally relevant principles impact students appreciation of science** *LEARNING MEDIA AND TECHNOLOGY*
  Brown, B., Boda, P., Ribay, K., Wilsey, M., Perez, G.
  2021
- **Teaching Culturally Relevant Science in Virtual Reality: "When a Problem Comes, You Can Solve It with Science"** *JOURNAL OF SCIENCE TEACHER EDUCATION*
  Brown, B., Perez, G., Ribay, K., Boda, P. A., Wilsey, M.
  2021; 32 (1): 7–38
- **Participatory research on using virtual reality to teach ocean acidification: a study in the marine education community** *ENVIRONMENTAL EDUCATION RESEARCH*
  Fauville, G., Queiroz, A. C. M., Hambrick, L., Brown, B. A., Bailenson, J. N.
  2020
- **Designing for Relationality in Virtual Reality: Context-Specific Learning as a Primer for Content Relevancy** *JOURNAL OF SCIENCE EDUCATION AND TECHNOLOGY*
  Boda, P. A., Brown, B.
  2020
- **Priming urban learners' attitudes toward the relevancy of science: A mixed-methods study testing the importance of context** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Boda, P. A., Brown, B.
  2019
- **Language ideologies in science education** *SCIENCE EDUCATION*
  Lemmi, C., Brown, B. A., Wild, A., Zummo, L., Sedlacek, Q.
  2019; 103 (4): 854–74
- **Language and cognitive interference: How using complex scientific language limits cognitive performance** *SCIENCE EDUCATION*
  Brown, B. A., Donovan, B., Wild, A.
  2019; 103 (4): 750–69
- **Moving Culturally Relevant Pedagogy From Theory to Practice: Exploring Teachers' Application of Culturally Relevant Education in Science and Mathematics** *Urban Education*

Brown, B. A., Boda, P., Lemmi, C., Monroe, X. J.
2019; 54 (6): 775-803

- **Representing Racial Identity: Identity, Race, the Construction of the African American STEM Students** *URBAN EDUCATION*
  Brown, B. A., Mangram, C., Sun, K., Cross, K., Raab, E.
  2017; 52 (2): 170-206
- **Looks Like Me, Sounds Like Me! Race, Culture, and Language in the Creation of Digital Media** *EQUITY & EXCELLENCE IN EDUCATION*
  Brown, B. A., Edouard, K.
  2017; 50 (4): 400–420
- **Lyricism, Identity, and the Power of Lyricism as the Third Space** *SCIENCE EDUCATION*
  Brown, B. A., Cooks, J., Cross, K.
  2016; 100 (3): 437-458
- **From Description to Explanation: An Empirical Exploration of the African-American Pipeline Problem in STEM** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Brown, B. A., Henderson, J. B., Gray, S., Donovan, B., Sullivan, S., Patterson, A., Waggstaff, W.
  2016; 53 (1): 146-177
- **Overloaded and underprepared: Strategies for stronger schools and healthy, successful kids**
  Pope, D., Brown, M., Miles, S.
  John Wiley & Sons.2015
- **Urban Middle School Students' Reflections on Authentic Science Inquiry** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Maulucci, M. S., Brown, B. A., Grey, S. T., Sullivan, S.
  2014; 51 (9): 1119-1149
- **Urban middle school students' reflections on authentic science inquiry** *Journal of Research in Science Teaching*
  Maulucci, M. S., Brown, B. A., Grey, S. T., Sullivan, S.
  2014; 51 (9): 1119-1149
- **From access to success: Identity contingencies & African-American pathways to science** *Higher Education Studies*
  Brown, B. A., Henderson, B., Gray, S., Donovan, B., Sullivan, S.
  2013; 3 (1): 1
- **Exploring the alignment of black scientists with the American scientific community: Does race still matter?** *Journal of Women and Minorities in Science and Engineering*
  Brown, B. A., Parsons, E., Miles, R., Henderson, B.
  2013; 19 (2)
- **Isn't That Just Good Teaching? Disaggregate Instruction and the Language Identity Dilemma** *JOURNAL OF SCIENCE TEACHER EDUCATION*
  Brown, B. A.
  2011; 22 (8): 679–704
- **Isn’t that just good teaching? Disaggregate instruction and the language identity dilemma** *Journal of Science Teacher Education*
  Brown, B. A.
  2011; 22 (8): 679-704
- **Hip-hop as a resource for understanding the urban context** *CULTURAL STUDIES OF SCIENCE EDUCATION*
  Brown, B.
  2010; 5 (2): 521–24
- **Pathway Towards Fluency: Using 'disaggregate instruction' to promote science literacy** *INTERNATIONAL JOURNAL OF SCIENCE EDUCATION*
  Brown, B. A., Ryoo, K., Rodriguez, J.
  2010; 32 (11): 1465-1493
- **Pathway towards fluency: Using ‘disaggregate instruction’to promote science literacy** *International Journal of Science Education*
  Brown, B. A., Ryoo, K., Rodriguez, J.

2010; 32 (11): 1465-1493

- **Conceptual continuity and the science of baseball: using informal science literacy to promote students' science learning** *CULTURAL STUDIES OF SCIENCE EDUCATION*
  Brown, B. A., Kloser, M.
  2009; 4 (4): 875–97
- **A view of the tip of the iceberg: revisiting conceptual continuities and their implications for science learning** *CULTURAL STUDIES OF SCIENCE EDUCATION*
  Brown, B. A., Kloser, M.
  2009; 4 (4): 921–28
- **Intellectual innovation or intellectual retrofitting: on agency, culture and access to science education** *CULTURAL STUDIES OF SCIENCE EDUCATION*
  Brown, B. A.
  2009; 4 (2): 379–86
- **WHEN CULTURES CLASH Transposing a College-Going Culture in an Urban School** *TOWARDS A BRIGHTER TOMORROW*
  Brown, B. A., Brown, C. A., Jayakumar, U. M.
  edited by Allen, W. R., KimuraWalsh, E., Griffin, K. A.
  2009: 277–97
- **Intellectual innovation or intellectual retrofitting: on agency, culture and access to science education** *Cultural Studies of Science Education*
  Brown, B. A.
  2009; 4 (2): 379-386
- **A view of the tip of the iceberg: revisiting conceptual continuities and their implications for science learning** *Cultural Studies of Science Education*
  Brown, B. A., Kloser, M.
  2009; 4 (4): 921
- **Contextual Shifting: Teachers Emphasizing Students' Academic Identity to Promote Scientific Literacy** *SCIENCE EDUCATION*
  Reveles, J. M., Brown, B. A.
  2008; 92 (6): 1015-1041
- **Double talk: Sythesizing everyday and science language in the classroom** *SCIENCE EDUCATION*
  Brown, B. A., Spang, E.
  2008; 92 (4): 708-732
- **Teaching science as a language: A "Content-First" approach to science teaching** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Brown, B. A., Ryoo, K.
  2008; 45 (5): 529-553
- **Assessment and Academic Identity: Using Embedded Assessment as an Instrument for Academic Socialization in Science Education** *TEACHERS COLLEGE RECORD*
  Brown, B. A.
  2008; 110 (10): 2116-2147
- **Assessment and Academic Identity: Using Embedded Assessment as an Instrument for Academic Socialization in Science Education.** *Teachers College Record*
  Brown, B. A.
  2008; 110 (10): 2116-2147
- **Double talk: Synthesizing everyday and science language in the classroom** *Science Education*
  Brown, B. A., Spang, E.
  2008; 92 (4): 708-732
- **Discursive identity and science teaching: Teachers emphasizing student identity in science instruction** *Science Education*
  Reveles, J., Brown, B.
  2008; 92 (5): 1015-1041

- **Teaching science as a language: A “content#first” approach to science teaching** *Journal of Research in Science Teaching*
  Brown, B. A., Ryoo, K.
  2008; 45 (5): 529-553
- **"It isn't no slang that can be said about this stuff": Language, identity, and appropriating science discourse** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Brown, B. A.
  2006; 43 (1): 96-126
- **“It isn't no slang that can be said about this stuff”: Language, identity, and appropriating science discourse** *Journal of Research in Science Teaching*
  Brown, B. A.
  2006; 43 (1): 96-126
- **Scientific literacy and discursive identity: A theoretical framework for understanding science learning** *SCIENCE EDUCATION*
  Brown, B. A., Reveles, J. M., Kelly, G. J.
  2005; 89 (5): 779-802
- **Educational outreach at the Stanford Environmental Molecular Science Institute** *230th National Meeting of the American-Chemical-Society*
  Saltzman, J., Brown, B. A.
  AMER CHEMICAL SOC.2005: U1717–U1717
- **The politics of public discourse: Discourse, identity and African Americans in science education** *Negro Educational Review*
  Brown, B. A.
  2005; 56 (2/3): 205
- **Scientific literacy and discursive identity: A theoretical framework for understanding science learning** *Science Education*
  Brown, B. A., Reveles, J. M., Kelly, G. J.
  2005; 89 (5): 779-802
- **Discursive identity: Assimilation into the culture of science and its implications for minority students** *JOURNAL OF RESEARCH IN SCIENCE TEACHING*
  Brown, B. A.
  2004; 41 (8): 810-834
- **Discursive identity: Assimilation into the culture of science and its implications for minority students** *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*
  Brown, B. A.
  2004; 41 (8): 810-834
- **Professional development for university scientists around issues of equity and diversity: Investigating dissent within community** *Journal of Research in Science Teaching*
  Bianchini, J. A., Hilton#Brown, B. A., Breton, T. D.
  2002; 39 (8): 738-771
- **Toward inclusive science education: University scientists' views of students, instructional practices, and the nature of science** *Science Education*
  Bianchini, J. A., Whitney, D. J., Breton, T. D., Hilton#Brown, B. A.
  2002; 86 (1): 42-78
- **Students' experiences of ability grouping-disaffection, polarisation and the construction of failure** *British Educational Research Journal*
  Boaler, J., Wiliam, D., Brown, M.
  2000; 26 (5): 631-648