

1. Record Nr.	UNINA9910493689303321
Titolo	Critical Issues and Bold Visions for Science Education / Lynn A. Bryan, Kenneth Tobin
Pubbl/distr/stampa	Leiden, ; Boston : , : Brill Sense, , 2019
ISBN	90-04-38966-0
Descrizione fisica	1 online resource (305 pages)
Collana	Bold Visions in Educational Research ; ; v. 63
Disciplina	507.1
Soggetti	Science - Study and teaching Education - Research Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Matter -- Copyright page -- List of Figures and Tables -- Bold Visions for Science Education / Kenneth Tobin and Lynn Bryan -- Mind the Gap Between Science, Teaching and Education / Glauco Silva , MarcíLia Barcellos and Elisabeth Souza -- Teaching Science in Times of Crisis / S. Lizette Ramos De Robles and Alejandro J. Gallard MARTÍNEZ -- I Know What I Want to Teach but How Can I Know What They Are Going to Learn? / Ralph Levinson -- Adventures in Cheeseworld / Mitch Bleier and Ashley N. Morton -- Exploring the Transformative Potential of Experiential Learning / Sonya N. Martin and Da Yeon Kang -- Taking a Risk / Leah D. Pride -- Creative Critical Inquiry / Jennifer D. Adams -- The Engagement of Community Stakeholders in School Science Education / Arnau Amat -- Examining the Mediation of Power in Informal Environments / Geeta Verma , Anton Puvirajah and Helen Douglass -- Innovation to What End? / Michael Tan -- Being a Science Education Researcher and a Concerned Citizen against Epistemological Anesthesia / Chantal Pouliot -- Science Education as a Material Issue? / Colin Hennessy Elliott , Shruti Krishnamoorthy , Catherine Milne and Kathryn Scantlebury -- Emotion Work at the Frontline of STEM Teaching / Alberto Bellocchi , Kathy Mills , Rebecca Olson , Roger Patulny and Jordan Mckenzie -- Science Education Researcher as Consultant-Researcher / Masakata Ogawa -- Science Education / Shakhnoza Kayumova , Lucy Avraamidou and Jennifer D. Adams -- Back Matter --

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Sommario/riassunto

Critical Issues and Bold Visions for Science Education contains 16 chapters written by 32 authors from 11 countries. The book is intended for a broad audience of teachers, teacher educators, researchers, and policymakers. Interesting perspectives, challenging problems, and fresh solutions grounded in cutting edge theory and research are presented, interrogated, elaborated and, while retaining complexity, offer transformative visions within a context of political tensions, historical legacies, and grand challenges associated with Anthropocene (e.g., sustainability, climate change, mass extinctions). Within overarching sociocultural frameworks, authors address diverse critical issues using rich theoretical frameworks and methodologies suited to research today and a necessity to make a difference while ensuring that all participants benefit from research and high standards of ethical conduct. The focus of education is broad, encompassing teaching, learning and curriculum in pre-k-12 schools, museums and other informal institutions, community gardens, and cheeseworld. Teaching and learning are considered for a wide range of ages, languages, and nationalities. An important stance that permeates the book is that research is an activity from which all participants learn, benefit, and transform personal and community practices. Transformation is an integral part of research in science education. Contributors are: Jennifer Adams, Arnau Amat, Lucy Avraamidou, Marcília Elis Barcellos, Alberto Bellocchi, Mitch Bleier, Lynn A. Bryan, Helen Douglass, Colin Hennessy Elliott, Alejandro J. Gallard Martínez, Elisabeth Gonçalves de Souza, Da Yeon Kang, Shakhnoza Kayumova, Shruti Krishnamoorthy, Ralph Levinson, Sonya N. Martin, Jordan McKenzie, Kathy Mills, Catherine Milne, Ashley Morton, Masakata Ogawa, Rebecca Olson, Roger Patulny, Chantal Pouliot, Leah D. Pride, Anton Puvirajah, S. Lizette Ramos de Robles, Kathryn Scantlebury, Glauco S. F. da Silva, Michael Tan, Kenneth Tobin, and Geeta Verma.
