

1. Record Nr.	UNINA9910164054203321
Autore	Ramirez Montoya Maria Soledad
Titolo	Handbook of research on driving STEM learning with educational technologies // Maria-Soledad Ramirez-Montoya, Technologico de Monterrey, Mexico
Pubbl/distr/stampa	Hershey, Pennsylvania : , : Information Science Reference, , [2017] 2017
ISBN	9781522520276 9781522520269
Descrizione fisica	1 online resource (xxx, 590 pages) : illustrations
Collana	Advances in Educational Technologies and Instructional Design, , 2326-8913
Disciplina	507.1
Soggetti	Science - Study and teaching - United States Technology - Study and teaching - United States Engineering - Study and teaching - United States Mathematics - Study and teaching - United States Educational technology - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Training educational researchers in science and mathematics: a case study through a binational workshop Mexico-UK / Maria-Soledad Ramirez-Montoya -- Using modeling and simulation to learn mathematics / Ruth Rodriguez Gallegos -- Teachers and mathematical modeling: what are the challenges? / Samantha Analuz Quiroz Rivera, Ruth Rodriguez Gallegos -- Data literacy and citizenship: understanding 'big data' to boost teaching and learning in science and mathematics / Eddy L. Borges-Rey -- Financial literacy: gaps found between Mexican public and private, middle, and high-school students / Adriana Berenice Valencia Alvarez, Jaime Ricardo Valenzuela Gonzalez -- A project-based learning approach: developing mathematical competences in engineering students / Ismael Osuna Galan, Alejandro Miguel Rosas-Mendoza -- Didactic sequences teaching mathematics for engineers with focus on differential equations / Luis Ramon Siero Gonzalez, Avenilde Romo Vazquez -- Making links between solutions

to an unstructured problem: the role of pre-written, designed student responses / Sheila Evans -- Assessing authentic intellectual work in mathematics tasks / Lesly Yahaira Rodriguez Martinez, Maria Guadalupe Perez Martinez, Adriana Mercado Salas -- The importance of the disciplinary perspective in educational research / Ross Kerr Galloway, Paul Hernandez-Martinez -- Learning biology with situated learning in Mexican Zapoteca tele-secondary schools / Paulina Guerrero-Gutierrez -- Transformations of the concept of linear function in technological high schools / Rebeca Flores Garcia -- Measurement instruments to motivate scientific learning by conceptual change / Ana Marcela Monjardin Gopar, Geronimo Mendoza Meraz -- Test design to assess the qualities of science students' prior knowledge / Luis Hernan Arellano Ulloa, Geronimo Mendoza Meraz, Ana Cecilia Villarreal Ballesteros -- Argumentation schema to analyze high school students' scientific reasoning / Ricardo Lorenzo De la Garza, Genaro Zavala, Alma Adrianna Gomez Galindo -- Accurate items for inaccurate conceptions in undergraduate physics students / Eder Hernandez, Genaro Zavala -- A look into students' interpretation of electric field lines / Esmeralda Campos, Genaro Zavala -- Research-based strategies in an electric circuits lab: tutorials and realtime physics approaches / Monica Quezada-Espinoza, Genaro Zavala -- Integration of digital technologies: collaborative practices in teaching mathematics / Andres Vazquez Faustino -- The effectiveness of computer-aided assessment for the purposes of a mathematical sciences lecturer / Stephen James Broughton, Paul Hernandez-Martinez, Carol L. Robinson -- Construction of the definite integral concept using open source software / Lizzeth Aurora Navarro-Ibarra, Omar Cuevas-Salazar, Alan Daniel Robles-Aguilar -- Context as action in the teaching of statistical concepts: an activity theory perspective / Helen Harth -- Statistics in journalism practice and higher education / Jairo A. Lugo-Ocando -- Understanding quality of statistics in news stories: a theoretical approach from the audience's perspective / Alessandro Martinisi -- The uses of science statistics in the news media and on daily life / Renata Faria Brandao.

Sommario/riassunto

"[This book] is an authoritative reference source for the latest scholarly research on the implementation and use of different techniques of instruction in modern classroom settings. Featuring exhaustive coverage on a variety of topics including data literacy, student motivation, and computer-aided assessment, this resource is an essential reference publication ideally designed for academicians, researchers, and professionals seeking current research on emerging uses of technology for STEM education"--Provided by publisher.
