



1st ed. 2018, XII, 285 p. 41 illus., 16 illus. in color.

Printed book

Hardcover

119,99 € | £109.99 | \$149.99

^[1]128,39 € (D) | 131,99 € (A) | CHF

141,50

Softcover

84,99 € | £74.99 | \$109.99

^[1]90,94 € (D) | 93,49 € (A) | CHF

100,50

eBook

71,68 € | £59.99 | \$84.99

^[2]71,68 € (D) | 71,68 € (A) | CHF

80,00

Available from your library or
springer.com/shop

MyCopy ^[3]

Printed eBook for just

€ | \$ 24.99

springer.com/mycopy

S.M. Uzzo, S.B. Graves, E. Shay, M. Harford, R. Thompson (Eds.)

Pedagogical Content Knowledge in STEM

Research to Practice

Series: Advances in STEM Education

- Features approaches for leveraging PCK research in STEM learning across formal and informal settings
- Combines a focus on STEM PCK research, case studies and applications in clinical environments
- Includes valuable analyses of the use of PCK in STEM preservice residency models

This volume represents both recent research in pedagogical content knowledge (PCK) in science, technology, engineering and math (STEM), as well as emerging innovations in how PCK is applied in practice. The notion of "research to practice" is critical to validating how effectively PCK works within the clinic and how it can be used to improve STEM learning. As the need for more effective educational approaches in STEM grows, the importance of developing, identifying, and validating effective practices and practitioner competencies are needed. This book covers a wide range of topics in PCK in different school levels (middle school, college teacher training, teacher professional development), and different environments (museums, rural). The contributors believe that vital to successful STEM education practice is recognition that STEM domains require both specialized domain knowledge as well as specialized pedagogical approaches. The authors of this work were chosen because of their extensive fieldwork in PCK research and practice, making this volume valuable to furthering how PCK is used to enlighten the understanding of learning, as well as providing practical instruction. This text helps STEM practitioners, researchers, and decision-makers further their interest in more effective STEM education practice, and raises new questions about STEM learning.

Order online at springer.com / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

