

Springer

1st
edition

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

Printed book

Hardcover

Printed book

Hardcover

ISBN 978-3-319-97474-3

£ 109,99 | CHF 141,50 | 119,99 € |
131,99 € (A) | 128,39 € (D)

Available

Discount group

Science (SC)

Product category

Monograph

Series

Advances in STEM Education

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Softcover

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Education : Science Education

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

Pedagogical Content Knowledge in STEM

Research to Practice

- 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.

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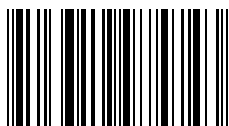
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ISBN 978-3-319-97474-3 / BIC: JNU / SPRINGER NATURE: SCO27000

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