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Research Thinking for Responsive Teaching: Research Skill Development with In-service and Preservice Educators

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Book Review:

Research Thinking for Responsive Teaching: Research Skill Development with In-service and Preservice Educators

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The book focuses on responsive teaching, highlighting the importance of adaptability and the effective utilization of resources to meet the needs of diverse learners. In the context of Education 4.0, digital literacy is crucial; however, educators also require clear objectives and a comprehensive understanding of their practices to maintain professional autonomy. The book presents the Research Skills Development (RSD) framework to guide teachers' research thinking across various contexts, including secondary schools in Australia and Canada, as well as pre-service teacher education in Indonesia and the United States.

The first chapter presents the RSD framework as a fundamental instrument for cultivating a research-oriented mindset, elaborating on how this framework facilitates the systematic application of research skills in educational settings. It investigates the characteristics of research thinking within the RSD framework, underscoring its cyclical and reflective nature, as well as its influence on the enhancement of classroom practices. Additionally, this chapter outlines how the following chapters are constructed around the theme of research thinking, providing practical examples and insights. The book concludes this chapter by addressing the wider implications for educational theory and practice, demonstrating that the incorporation of research thinking into teaching methodologies can yield substantial improvements at both individual and systemic levels. Part I is dedicated to the implementation of teacher research thinking, with Chapter 2 establishing the context of the secondary school classroom. This chapter describes a participant observation

study that investigates how a teacher explicitly imparts research skills to a combined Year 9/10 class with the objective of preparing students for a year-long research project. The teacher utilizes the RSD.

Chapter 3 examines how teacher educators (TEs) used open educational practices (OEPs) to enhance in-service schoolteachers' (I-STs) research thinking. Most graduate students in the program were K–12 teachers or worked in educational development and adult learning. OEPs, rooted in social constructivism, were integrated into a fully online master's program in education at a Canadian university. I-STs were treated as professional scholars and given structured opportunities to develop research skills. Findings indicate that responsive teaching is crucial to OEP and effectively supports the development of research skills and thinking in I-STs. Chapter 4 analyzes how I-STs used the RSD framework in their publications to explore contemporary educational issues in Australia. The I-STs, in their first semester of a Master of Education program, engaged with the RSD framework to reflect on their classroom practices. A teacher educator's analysis revealed that this approach helped I-STs understand the framework's role in empowering them as researchers. The study highlights the potential for I-STs to move beyond technical research views and engage with the cultural dimensions of research, enhancing their responsiveness as teachers. Chapter 5 explores how the RSD framework has enhanced professional development programs for university educators through Communities of Practice (CoP) at two universities: one in Canada and one in the U.S. Midwest. The RSD framework fostered interest and discourse among educators by providing a common language to examine and innovate teaching practices. It facilitated individual and group research thinking, leading to greater engagement with research-oriented teaching and the scholarship of teaching and learning (SoTL). The findings suggest that CoPs guided by the RSD framework can drive significant, lasting improvements in teaching and research practices, addressing evolving university challenges.

Part II provides three chapters on initial teacher education, with Chapter 6 examining how social media can facilitate preservice teachers' (PSTs') research thinking by integrating Instagram into lesson design. In a study with 64 undergraduate PSTs in a second-year biology course, students used Instagram to identify, report, and research plants. The RSD framework was applied alongside social media-based learning to enhance research skills, guide assessment and feedback, and assess the impact of this approach. The findings suggest that using Instagram as a digital learning tool offers potential for PSTs to innovate in instructional design and improve their research skills as future curriculum designers. Chapter 7 critiques the assumption that PSTs naturally have or can self-learn advanced digital skills. Instead, it emphasizes explicit digital literacy instruction using the Digital Skill Development (DSD) framework, based on the RSD framework. At Monash University, 190 second-year PSTs were surveyed on their digital skills before and after a digital technology unit. The study highlighted areas of digital skill awareness and gaps, aiming to improve digital skill development in teacher education. The final chapter explores how PSTs and TEs navigate academic uncertainties through effective instructional design. It reports on a qualitative study of a TE's design of a research-integrated preclinical secondary education course using the RSD Framework. The study found that the course redesign effectively engaged PSTs by integrating research thinking into their learning. The findings suggest benefits for curriculum-based research experiences, expanded TE roles in curriculum design, and the importance of faculty-student partnerships for academic success.

This book is highly effective in translating theoretical concepts into practical strategies. The case studies provide concrete examples of how the RSD framework can be applied across various contexts, offering actionable insights for readers to implement in their own practices. By encompassing a range of educational environments—from geographically isolated schools to

advanced digital platforms—this book illustrates the adaptability of the RSD framework. This diversity ensures that the content remains relevant for educators in multiple settings. Furthermore, the emphasis on responsive teaching aligns with contemporary educational trends towards personalized and adaptive learning. The book's focus on how research-informed thinking can enhance teaching practices is both timely and pertinent. Additionally, the exploration of how the RSD framework supports professional development stands out as a significant strength, providing a clear pathway for educators to enhance their skills and practices through structured learning opportunities.

Certain readers, particularly those who are new to educational research, may find theoretical discussions to be complex. Simplifying or providing more introductory explanations could enhance the accessibility of this book for a broader audience. While the book presents numerous successful implementation examples, it would be more beneficial if it delved deeper into the common challenges and obstacles encountered when applying the RSD framework. This approach would offer a more balanced perspective and practical recommendations for overcoming these barriers. A more detailed analysis of the outcomes and impacts associated with the use of the RSD framework, including quantitative data if available, could strengthen the book's arguments and provide clearer evidence of its effectiveness. Additionally, incorporating interactive elements such as reflective questions, practical exercises, or digital resources could enhance reader engagement, and the application of the concepts discussed.

Research Thinking for Responsive Teaching: Research Skill Development with In-service and Preservice Educators serves as a vital resource for educators aiming to incorporate research-oriented thinking into their teaching methodologies. Its detailed case studies, emphasis on professional development, and diverse educational contexts render it a significant contribution to the field. By addressing both theoretical foundations and practical applications, this book offers a comprehensive guide for enhancing teaching practices informed by research. While there are areas that require refinement, particularly in simplifying complex concepts and addressing implementation challenges, the book provides substantial insights and strategies for educators dedicated to improving their practices through research thinking. The implications are far-reaching, offering valuable guidance for improving teaching practice, curriculum design, and professional development. By promoting research thinking and integrating the RSD framework, the book advocates for a more responsive, reflective, and innovative approach to education that better meets the needs of teachers and students in a rapidly evolving educational landscape.

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