

# Contents

<b>1</b>	<b>Introduction</b> . . . . .	<b>1</b>
	Seng Chee Tan	
<b>Section I Theoretical and Methodological Foundations for Knowledge Creation</b>		
<b>2</b>	<b>Perspectives of Knowledge Creation and Implications for Education</b> . . . . .	<b>11</b>
	Seng Chee Tan and Yuh Huann Tan	
<b>3</b>	<b>Knowledge Building and Knowledge Creation: One Concept, Two Hills to Climb</b> . . . . .	<b>35</b>
	Carl Bereiter and Marlene Scardamalia	
<b>4</b>	<b>Triological Approach for Knowledge Creation</b> . . . . .	<b>53</b>
	Sami Paavola and Kai Hakkarainen	
<b>5</b>	<b>Harnessing Emerging Technologies to Build the Next Generation of Knowledge Creation Platform for School Students</b> . . . . .	<b>75</b>
	Pei-Shan Tsai, Ching Sing Chai, and Kah Eng Hoe	
<b>6</b>	<b>Statistical Discourse Analysis of Online Discussions: Informal Cognition, Social Metacognition, and Knowledge Creation</b> . . . . .	<b>97</b>
	Ming Ming Chiu and Nobuko Fujita	
<b>7</b>	<b>Creating Knowledge</b> . . . . .	<b>113</b>
	Timothy Koschmann	
<b>Section II Knowledge Creation Pedagogies in Practice</b>		
<b>8</b>	<b>Designing the Situation for Pervasive Knowledge Building: Future School Experiences</b> . . . . .	<b>123</b>
	Hyo-Jeong So and Esther Tan	

**9 From Problem-Based Learning to Knowledge Creation . . . . . 143**  
Jennifer Yeo

**10 Knowledge Creation in the Mangle of Practice: Implications  
for Educators . . . . . 167**  
Yew-Jin Lee

**11 Developing Student-Centered Teaching Beliefs Through Knowledge  
Building Among Prospective Teachers . . . . . 189**  
Huang-Yao Hong

**12 Conceptual Shifts Within Problem Spaces for Knowledge-Building  
Practice Within a Teacher Community . . . . . 205**  
Chew Lee Teo

**13 Knowledge Building Pedagogy and Teachers’ Technological  
Pedagogical Content Knowledge . . . . . 227**  
Nancy Law

**14 Teacher Learning in a Professional Learning Team: Of  
Contradictions and Action Possibilities . . . . . 249**  
Lai Har Judy Lee and Seng Chee Tan

**15 Reflections and Commentary on Knowledge Creation in Practice . . . 271**  
Peter Reimann

**Section III Conclusion**

**16 Knowledge Creation in Singapore Schools: Our Journey  
and Ways Forward . . . . . 283**  
Seng Chee Tan, Jennifer Yeo, Hyo-Jeong So, John Eu Gene Ow,  
Ching Sing Chai, and Chew Lee Teo

**Index . . . . . 303**



<http://www.springer.com/978-981-287-046-9>

Knowledge Creation in Education

Tan, S.C.; So, H.J.; Yeo, J. (Eds.)

2014, XIX, 305 p. 40 illus., 11 illus. in color., Hardcover

ISBN: 978-981-287-046-9