

CONTENTS

<i>Catalyzing Change in Middle School Mathematics</i> Task Force and Writing Team	v
Acknowledgments	vii
Preface: Broadening the Critical Conversations	ix
Chapter 1: Why We Need to Catalyze Change	1
Progress Needed in Middle School Mathematics	2
Identified Challenges	3
Initiating Critical Conversations	4
Key Recommendations	5
Chapter 2: The Purposes of Middle School Mathematics	7
Develop Deep Mathematical Understanding	8
Understand and Critique the World Through Mathematics	11
Experience the Wonder, Joy, and Beauty of Mathematics	15
The Power of Multiple Purposes	17
Chapter 3: Creating Equitable Structures	19
Shifting from Deficit-Based to Strength-Based Beliefs about Students ...	21
Ability Grouping and Student Tracking	24
Teacher Tracking	31
Dismantling Tracking	32
Distinguishing Tracking from Appropriate Acceleration	37
Equitable Structures for Student Success	39

Chapter 4: Implementing Equitable Mathematics Instruction . . .	41
Identity, Agency, and Shared Classroom Authority	42
Equitable Mathematics Teaching Practices.	43
Supporting the Implementation of Equitable Mathematics Instruction . . .	62
Chapter 5: Developing Deep Mathematical Understanding	65
Developing Mathematical Proficiencies, Practices, and Processes.	66
Middle School Mathematics Content Domains	73
Supporting the Implementation of Mathematical Practices, Processes, and Content.	93
Chapter 6: Next Steps for Catalyzing Change	95
Key Recommendations Restated.	95
Actions for Districts, Schools, and Teachers	96
Actions for Paraprofessionals, Substitute Teachers, and Families and Communities	97
Actions for Elementary Schools	97
Actions for High Schools	98
Actions for Policymakers.	98
Actions for Mathematics Teacher Educators and Researchers	99
Actions for NCTM	99
Conclusion.	100
References	101

Additional resources supporting the Catalyzing Change Series are available at www.nctm.org/change.