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Nota di contenuto	Lesson Play in MathematicsEducation; Preface; Contents; Part I; 1 Planning for Instruction; Legacy of the Tylerian Lesson Plan; Lesson Plan: An Example; Alternative Models; Conclusion; 2 Introducing Lesson Play; Developing the "Lesson Play"; Potential Interactions; A Sample Lesson Play; Virtual Planning: What the Lesson Might Be; 3 Evolution of the Task; Lesson Play: Iterative Design; First Iteration; Next Iterations; Final Iterations; Lesson Play: Toward 'Real Teaching'; Part II; 4 Linear Measurement: How Long is a Stick?; Diverting Teacher--Student Interaction; "Who else?" "Place blockshellip and count them"Funneling Through Telling; "Important rules for measuring"; "When we are measuring we have to start at 0"; "There is a special trick that we use when we count!"; "Place the stick upright on the table"; Funneling Through Rerouting a Strategy; "Count the spaces in between the numbers"; "No matter where you start"; "If you chose to start the measurement of your stick at 5 cmhellip"; "You don't count the first line"; "Can you draw me a 1 cm long line"; What Do We Learn About Prospective Teachers' Ideas of Measurement?; 5 On Divisibility by 4

Retrieving the Correct Divisibility Rule&!ldquo; "Who can remember?"; "Look it up in my notes" or elsewhere; "We can look in the glossary of the textbook"; "I think we are confusinghellip"; "Some wonderful little tricks"; "You've won the concert tickets!"; "How about 1000456814?"; Moving Toward Student Reasoning; "See if you can find a rule that does work"; "That's easy, they're all [16, 20 and 24] divisible by four"; "Start looking"hellip "after the break"; "How does it work?"; "Imagine that each one of these is a chocolate bar"; Uses of Mathematical Language "A number is divisible by 4 ifhellip""Just look at the last two numbers"; "What about the number 6, what's the rule for that one?"; More Troublesome Expressions; Becausehellip Alternative Diagnoses and Remediation; "Because 354 has 4 in the one's place"; "Let's try doing long division"; "Because 354 is an even number"; "I worked through all the division steps"; "4 goes into 354, 88.5 times"; Conclusion; 6 On Prime Numbers; Following Prompt #1; "We could make the multiplication table bigger"; "If I give you 12 blocks"
"I will circle them and cross out all the multiples of 5 and 7""We should not be using the multiplication tables"; Following Prompt #2; "Can a number that is bigger than 9 be a factor for a number?"; "Does anyone know the divisibility rule for 11?"; Following Prompt #3; "We only need to divide 37 by other primes"; "That is not how a prime number is defined"; "Let us use the blocks to find out"; "Can there be an endless number of prime numbers"; "Find a number that is not a prime number and is also not divisible by 2, hellip, 9"; Conclusion
7 Repeating Patterns: Cars and Colours

Sommario/riassunto

The book presents Lesson Play, a novel construct in mathematics education to be used by researchers and teacher educators. Inspired in part by the style of Lakatos’s evocative Proofs and Refutations, Lesson Play features imagined interactions between a teacher and her/his students, presented in the form of a script for dialogue in the classroom. This book offers the first comprehensive survey of the affordances of the Lesson Play tool, particularly in the areas of pre-service teacher education and teacher professional development. It exemplifies an approach to teacher education that seeks to coordinate mathematical and pedagogical dimensions of teaching as they emerge in real classroom settings by focusing on aspects of practice such as teaching moves and classroom discourse.