

BUILDING THINKING CLASSROOMS

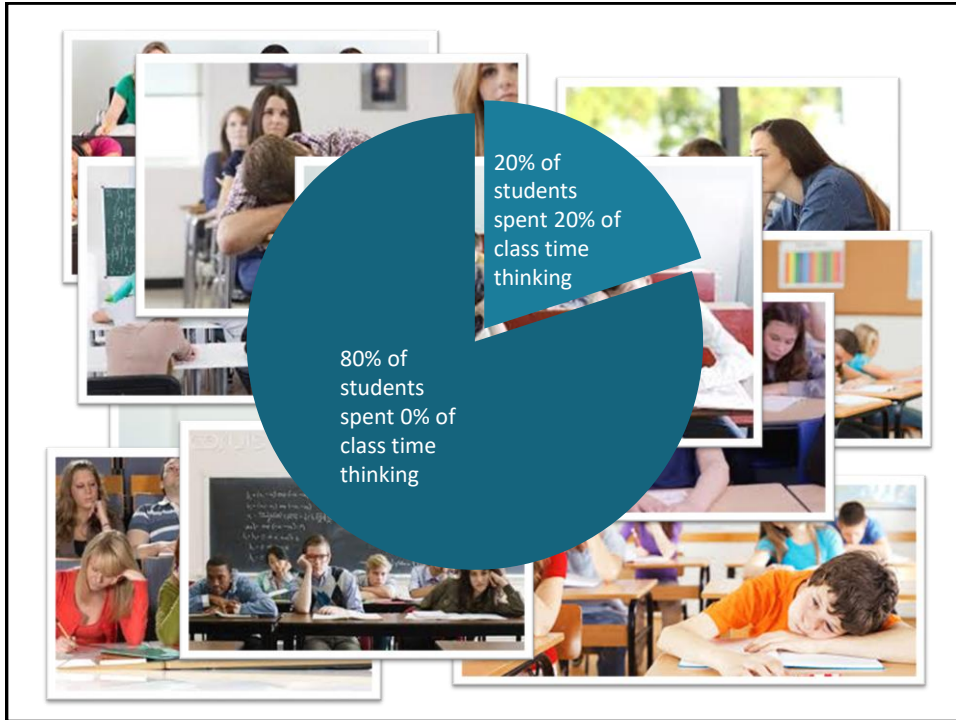


SFU

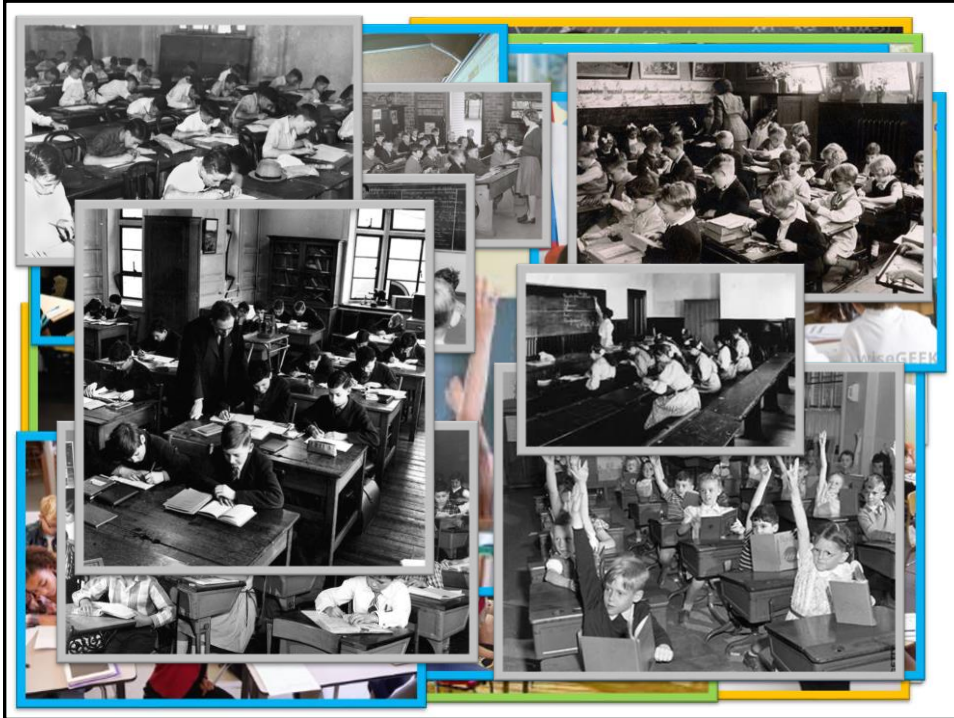
SIMON FRASER UNIVERSITY
ENGAGING THE WORLD

Peter Liljedahl
[@pgliljedahl](https://twitter.com/pgliljedahl)

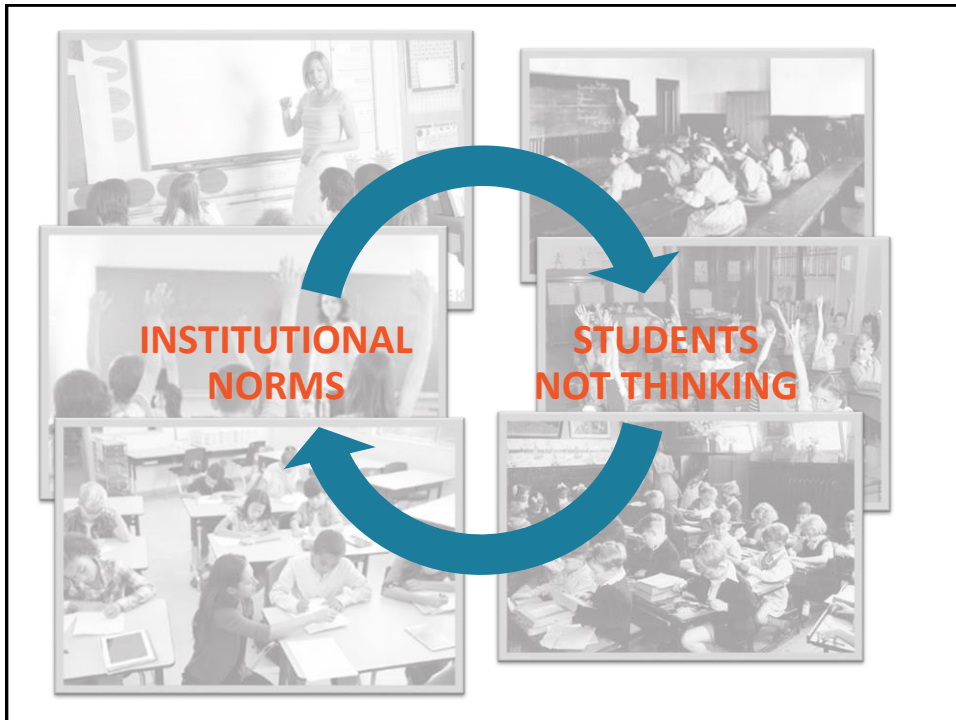
...back in 2003...













RENEGOTIATING THE NON-NEGOTIATED NORMS

400+ TEACHERS | 15 YEARS | 2 WEEK CYCLES

CLASSROOM PRACTICES

- 1 What are the types of tasks we use?
- 2 How we form collaborative groups?
- 3 Where students work?
- 4 How we arrange the furniture in our classroom?
- 5 How we answer questions?
- 6 When, where, and how tasks are given?
- 7 What homework looks like?
- 8 How we foster student autonomy?
- 9 How we use hints and extensions?
- 10 How we consolidate a lesson?
- 11 How we give notes?
- 12 What we choose to evaluate?
- 13 How we use formative assessment?
- 14 How we grade?

CLASSROOM PRACTICES	OPTIMAL PRACTICES FOR THINKING
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CLASSROOM PRACTICES	OPTIMAL PRACTICES FOR THINKING
1 What are the types of tasks we use?	Use thinking tasks
2 How we form collaborative groups?	Form frequent visibly random groupings
3 Where students work?	Use vertical non-permanent surfaces
4 How we arrange the furniture in our classroom?	Defront the classroom
5 How we answer questions?	Only answer keep thinking questions
6 When, where, and how tasks are given?	Give tasks early, standing, and verbally
7 What homework looks like?	Give check your understanding questions
8 How we foster student autonomy?	Be intentionally less helpful
9 How we use hints and extensions?	Create and manage <i>flow</i>
10 How we consolidate a lesson?	Consolidate from the bottom
11 How we give notes?	Use meaningful notes
12 What we choose to evaluate?	Evaluate what you value
13 How we use formative assessment?	Communicate to students where they are and where they are going
14 How we grade?	Report out based on data (not points)

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5 You are backpack home, but you and you have fi	
6 payment of roo and he is willin	
7 he wants one number of lin	
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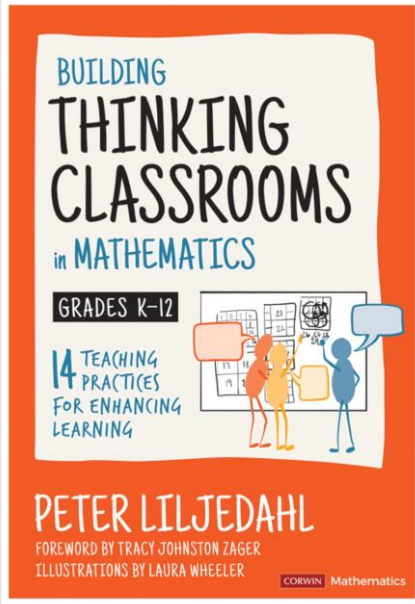
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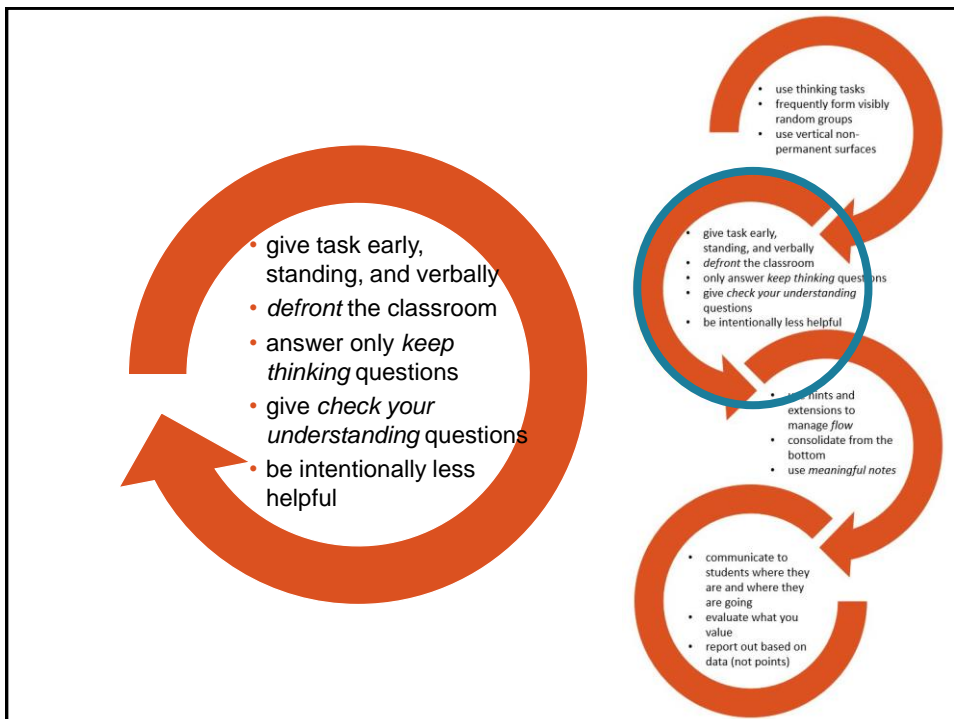
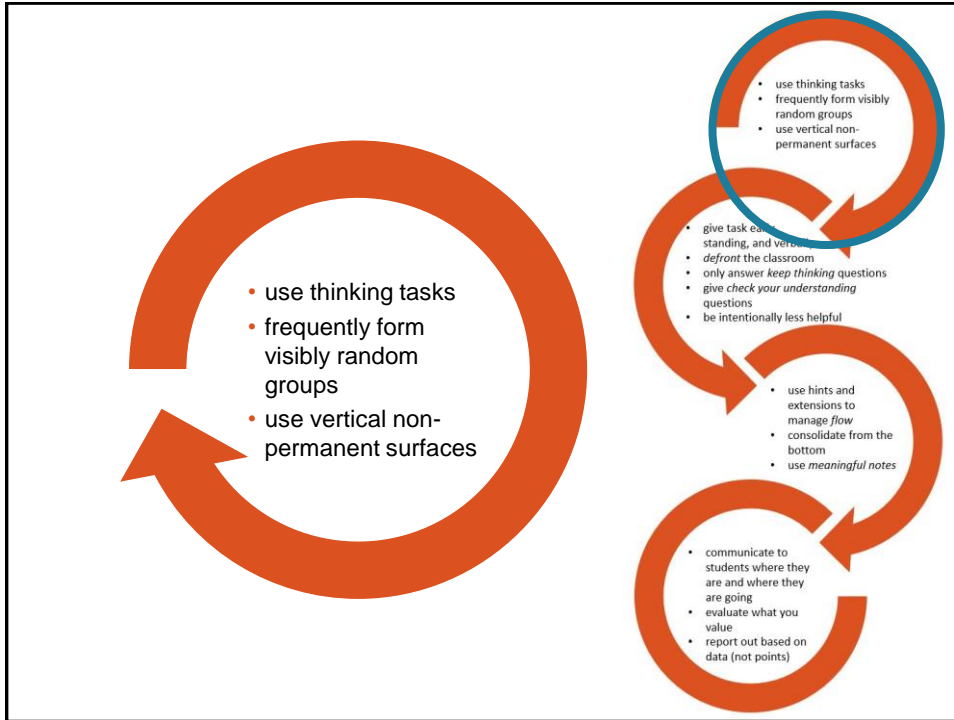
PROXIMITY QUESTIONS
STOP-THINKING QUESTIONS
KEEP-THINKING QUESTIONS

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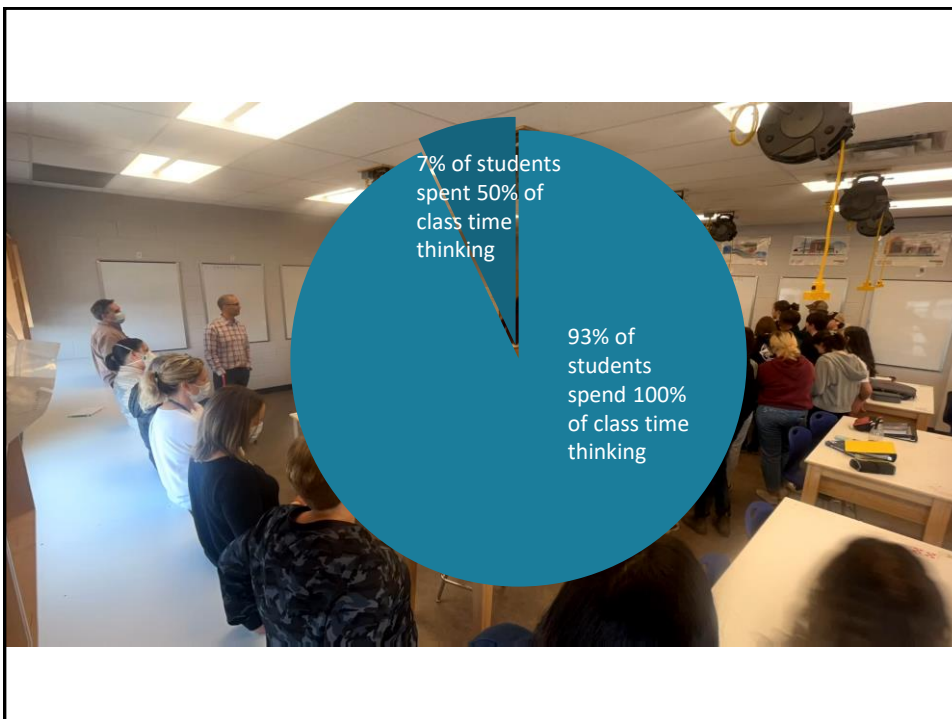
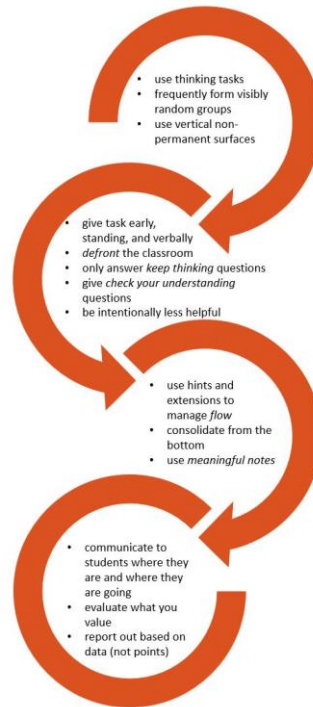
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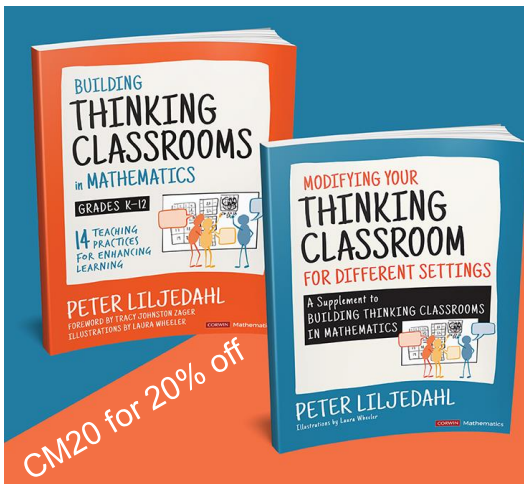
BUILDING THINKING CLASSROOMS





THANK YOU!

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BUILDING THINKING CLASSROOMS
in MATHEMATICS
GRADES K-12
14 TEACHING PRACTICES FOR ENHANCING LEARNING
PETER LILJEDAHL
FOREWORD BY TRACY DUNSTON EAGER
ILLUSTRATIONS BY LAURA WHEELER

MODIFYING YOUR THINKING CLASSROOM
FOR DIFFERENT SETTINGS
A Supplement to BUILDING THINKING CLASSROOMS IN MATHEMATICS
PETER LILJEDAHL
Illustrations by Laura Wheeler

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CORWIN Mathematics