

Intro to Spring Math

November 2018

+ Setting the stage...

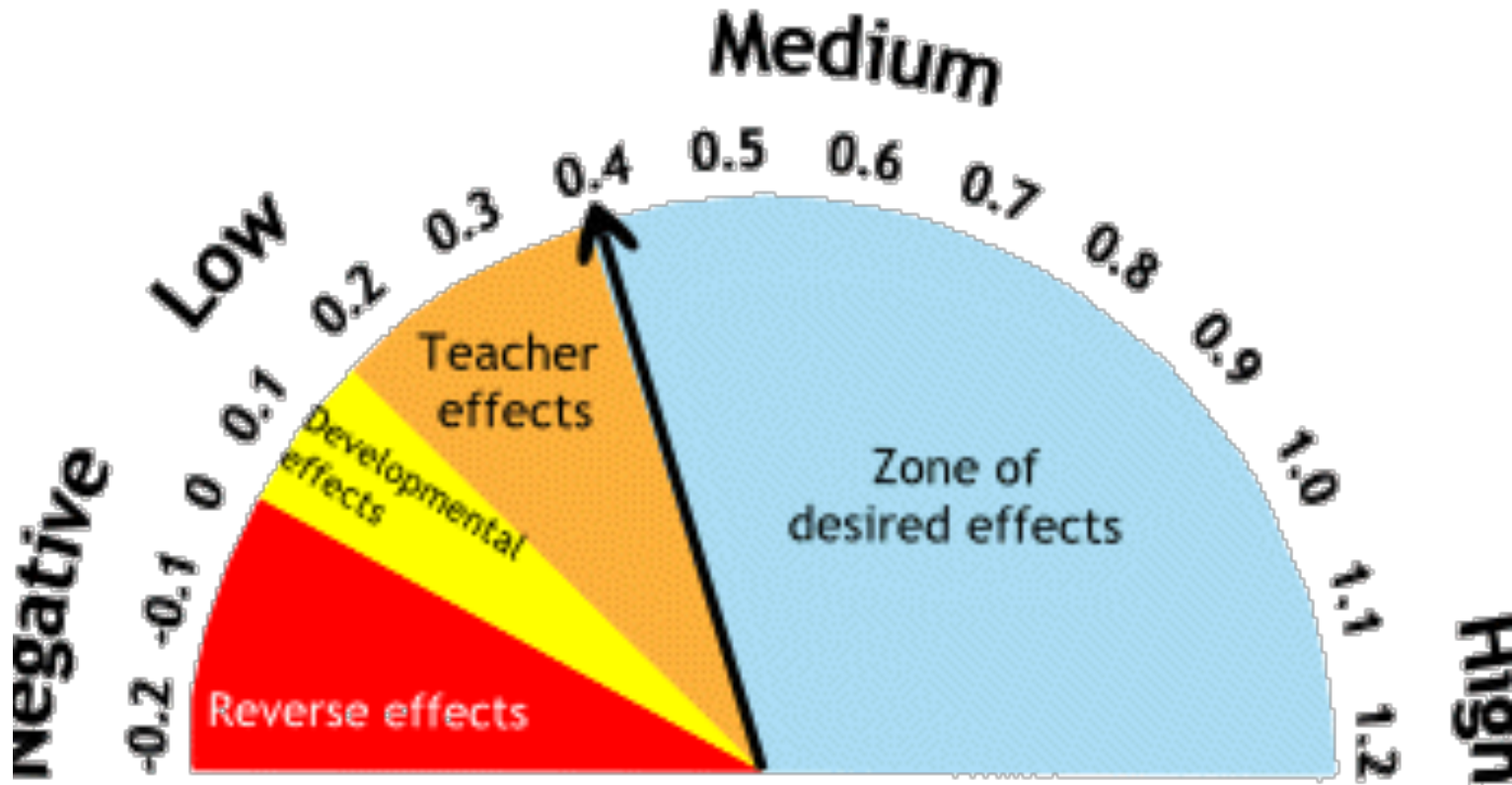


+ Data-Mania?



+

Hattie's Barometer of Effectiveness



The hinge-point; average effect-size 0.4

+ Outcomes



Instructional Practice	Effect Size (d)
Mobility	
Summer Vacation	
SE Placement	
Television	
Retention	

+ Outcomes



Instructional Practice	Effect Size (d)
Mobility	-0.34
Television	-0.18
Retention	-0.16
Summer Vacation	-0.09
SE Placement	-0.14 to +0.29

+ Know Thy Impact...

Instructional Practice	Effect Size (d)
Working Memory (Math)	0.07
Homework	0.29
Time On-Task	0.38
Matching Style of Learning	0.41
Parental Involvement	0.51
Pre-Term Birth Weight	0.54
Direct Instruction	0.60
Spaced v. Massed Practice	0.60
Rehearsal / Memorization	+0.73
Feedback	+0.73
Curriculum-Based Instruction, Graphing & Formative Evaluation PLUS Systematic Use of Reinforcement	+1.00
Response to Intervention	1.29



What the Research Says



- 24 studies of K-8 small-group reading interventions
 - Hall and Burns, 2016
 - 26 effects
- Targeted
 - 13 effects, $g = .65$
- Comprehensive
 - 13 effects $g = .26$

+ Skill-By-Treatment Interaction



- Interventions selected based on student functioning in the specific skill
- Systematically identify and manipulate environmental conditions that are directly related to a problem
- Isolate target skill deficits

Burns, Coddling, Boice, & Lukito, 2008

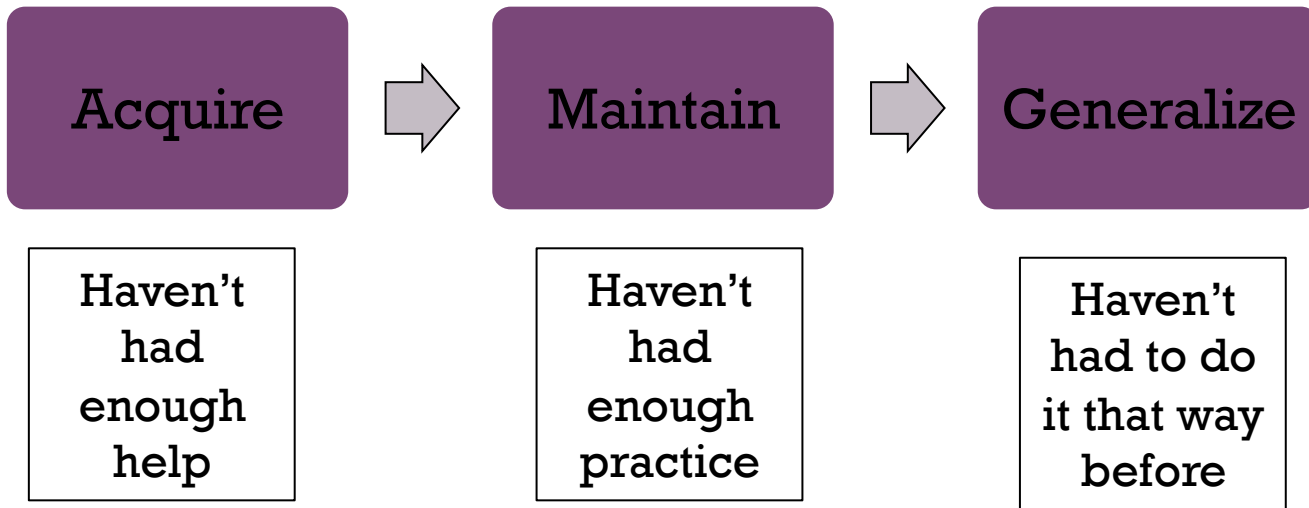
Instructional Hierarchy: Stages of Learning

	Acquisition	Proficiency	Generalization	Adaption
Learning Hierarchy	<ul style="list-style-type: none"> ■ Slow and inaccurate 	<ul style="list-style-type: none"> ■ Accurate but slow 	<ul style="list-style-type: none"> ■ Can apply to novel setting 	<ul style="list-style-type: none"> ■ Can use information to solve problems
Instructional Hierarchy	<ul style="list-style-type: none"> ■ Modeling ■ Explicit instruction ■ Immediate corrective feedback 	<ul style="list-style-type: none"> ■ Novel practice opportunities ■ Independent practice ■ Timings ■ Immediate feedback 	<ul style="list-style-type: none"> ■ Discrimination training ■ Differentiation training 	<ul style="list-style-type: none"> ■ Problem solving ■ Simulations

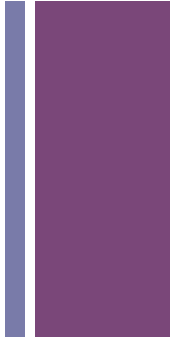
Haring, N. G., & Eaton, M. D. (1978). Systematic instructional procedures: An instructional hierarchy. In N. G. Haring, T. C. Lovitt, M. D. Eaton, & C. L. Hansen (Eds.) *The fourth R: Research in the classroom* (pp. 23-40). Columbus, OH: Charles E. Merrill.



Learning Process



+ Spring Math



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Upper right hand corner under your name. Click Support.

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Click Quick Start Videos, and then Teacher Quick Start Videos

+ Spring Math Intro



- Intro to Spring Math

+ How to Screen Your Class

- Screening Your Class



+ Individual Intervention

- Individual Intervention

