

Supplementary Material

Sample of the material

Table S1

Examples of the first five problems of each problem type (*ten-strategy problems* and *baseline*) in the parallel sets A and B. The results printed in italics had to be filled in by the participants.

<i>Set A</i>		<i>Set B</i>	
<i>Ten-strategy</i>	<i>Baseline</i>	<i>Ten-strategy</i>	<i>Baseline</i>
$4+5+6=15$	$4+3+8=15$	$6+5+4=15$	$8+4+3=15$
$3+2+7=12$	$3+5+4=12$	$7+2+3=12$	$3+4+5=12$
$5+6+5=16$	$8+5+3=16$	$5+9+5=19$	$8+3+5=16$
$7+4+3=14$	$2+5+7=14$	$3+4+7=14$	$5+2+7=14$
$2+7+8=17$	$9+3+5=17$	$8+7+2=17$	$5+3+9=17$
<i>Set A</i>		<i>Set B</i>	
<i>Addends-compare</i>	<i>Baseline</i>	<i>Addends-compare</i>	<i>Baseline</i>
$3+5+4=12$	$5+3+4=12$	$4+3+5=12$	$4+5+3=12$
$4+9+8=21$	$8+9+4=21$	$5+7+9=21$	$8+4+9=21$
$4+8+9=21$	$6+7+8=21$	$5+9+7=21$	$7+8+6=21$
$6+2+5=13$	$5+2+6=13$	$2+6+5=13$	$2+5+6=13$
$9+7+2=18$	$2+7+9=18$	$4+5+9=18$	$7+9+2=18$
$2+9+7=18$	$9+4+5=18$	$5+4+9=18$	$5+9+4=18$

Additional analyses of the error rates

Experiment 1

After analyzing the error rates for both strategies (ten-strategy and addends-compare strategy) we compare differences in the % error rates with a T-Tests between the baseline and addends-compare booklet (Table A3). The results showed no significant differences.

Experiment 2

We found no significant differences in the % error rates in T-Tests between the baseline and addends-compare booklet (Table A2). Also a 2 (problem type: baseline vs. addends-compare booklet) X 3 (warm-up condition: ten-strategy vs. baseline vs. inversion warm-up) X 2 (grade: second vs. third grade) ANOVA showed no significant effects for the error rate except the significant main effect for grade $F(1, 256)=16.63, p<.00, \eta^2=.06$.

Table S2

Error rates per problem type and grade (Experiment 1)

	% errors		
		<i>Baseline</i>	<i>p</i>
Addends-compare	27.02	30.15	.50
Ten-strategy	15.03		

Table S3

Error rates per problem type and grad (Experiment 2)

		% errors		
		Baseline	Addends- compare	<i>p</i>
Grade 2	ten-strategy	16.89	19.43	.22
	baseline	19.42	20.14	.79
	inversion	20.10	18.19	.52
Grade 3	ten-strategy	6.62	7.80	.56
	baseline	12.66	10.34	.53
	inversion	8.96	12.50	.11