

## Supplement B: Tables whole brain activation

**Table B1** Peak activation for delay period manipulation > maintenance before practice

z-value	# voxels	peak voxels			Region
		x	y	z	
<b>Adults</b>					
<i>Cluster 1</i>		18048		<i>Frontal Cortex</i>	
5.13		-32	0	60	Middle Frontal Gyrus
5.12		28	4	60	Superior Frontal Gyrus, Middle Frontal Gyrus
4.77		-48	4	50	Precentral Gyrus, Middle Frontal Gyrus
4.73		6	22	46	Paracingulate Gyrus, Superior Frontal Gyrus
4.72		36	24	-2	Insular Cortex, Frontal Orbital Cortex
4.65		-58	10	16	Inferior Frontal Gyrus, pars opercularis, Precentral Gyrus
<i>Cluster 2</i>		13901		<i>Parietal Cortex</i>	
4.64		12	-72	56	Lateral Occipital Cortex, superior division, Precuneus Cortex
4.62		-40	-42	42	Supramarginal Gyrus, posterior division, Superior Parietal Lobule, Supramarginal Gyrus, anterior division
4.56		32	-66	-28	Cerebellum
4.55		-40	-44	50	Superior Parietal Lobule, Supramarginal Gyrus, posterior division
4.37		36	-46	40	Supramarginal Gyrus, posterior division, Superior Parietal Lobule, Angular Gyrus
4.32		-32	-56	62	Superior Parietal Lobule, Lateral Occipital Cortex, superior division
<b>Children</b>					
n.s.					
<b>Adults &gt; Children</b>					
<i>Cluster 1</i>		1211		<i>Frontal Cortex, superior regions left hemisphere</i>	
3.57		-34	-4	58	Middle Frontal Gyrus, Precentral Gyrus
3.4		-48	4	50	Precentral Gyrus, Middle Frontal Gyrus
3.25		-42	0	28	Precentral Gyrus
2.91		-56	12	24	Inferior Frontal Gyrus, pars opercularis, Precentral Gyrus
2.35		-62	10	18	Precentral Gyrus
2.34		-40	14	58	Middle Frontal Gyrus
<i>Cluster 2</i>		1122		<i>Frontal Cortex, inferior regions left hemisphere</i>	
3.23		-40	26	20	Inferior Frontal Gyrus, pars triangularis, Middle Frontal Gyrus, Inferior Frontal Gyrus, pars opercularis
3.21		-34	24	-10	Frontal Orbital Cortex
3.17		-36	26	0	Frontal Orbital Cortex, Frontal Operculum Cortex, Insular Cortex
2.94		-60	22	0	Inferior Frontal Gyrus, pars opercularis, Inferior Frontal Gyrus, pars triangularis
2.62		-44	34	32	Middle Frontal Gyrus, Frontal Pole
2.4		-42	24	36	Middle Frontal Gyrus
<i>Cluster 3</i>		1113		<i>Lateral Occipital Cortex, Superior Parietal Cortex</i>	
3.91		8	-72	58	Lateral Occipital Cortex, superior division, Precuneus Cortex
3.58		14	-72	56	Lateral Occipital Cortex, superior division
3.58		-14	-74	58	Lateral Occipital Cortex, superior division
3.44		-28	-72	56	Lateral Occipital Cortex, superior division
3.34		-30	-68	58	Lateral Occipital Cortex, superior division
3.32		-32	-72	54	Lateral Occipital Cortex, superior division
<i>Cluster 4</i>		1082		<i>Frontal Cortex, left hemisphere</i>	
3.52		28	4	62	Superior Frontal Gyrus, Middle Frontal Gyrus
3.3		56	8	44	Precentral Gyrus, Middle Frontal Gyrus
3.07		50	8	52	Middle Frontal Gyrus

2.95	58	12	28	Precentral Gyrus, Inferior Frontal Gyrus, pars opercularis
2.51	50	20	48	Middle Frontal Gyrus

Thresholded at  $p < .05$ , cluster corrected (using clusters determined by  $z > 2.3$ )

Coordinates are in MNI space

**Table B2** Peak activation in children for delay period manipulation > maintenance after practice

z-value	# voxels	peak voxels			Region
		x	y	z	
<b>Cluster corrected at <math>z &gt; 2.3</math>, <math>p &lt; 0.05</math></b>					
<i>Cluster 1</i>	3001				<i>Occipital Cortex</i>
3.73		6	-72	8	Intracalcarine Cortex, Lingual Gyrus
3.71		-12	-74	4	Intracalcarine Cortex, Lingual Gyrus
3.68		18	-68	0	Lingual Gyrus, Intracalcarine Cortex
3.6		4	-76	16	Supracalcarine Cortex, Cuneal Cortex, Intracalcarine Cortex
3.4		8	-84	6	Intracalcarine Cortex
3.14		18	-68	14	Intracalcarine Cortex, Supracalcarine Cortex
<i>Cluster 2</i>	1339				<i>Superior Parietal Cortex</i>
3.73		-34	-42	48	Superior Parietal Lobule, Postcentral Gyrus
3.7		-36	-38	38	Supramarginal Gyrus, anterior division, Postcentral Gyrus
3.15		-28	-50	56	Superior Parietal Lobule
2.97		-26	-52	42	Superior Parietal Lobule
2.89		-18	-62	44	Lateral Occipital Cortex, superior division
2.86		-22	-56	58	Superior Parietal Lobule, Lateral Occipital Cortex, superior division
<b>Uncorrected at <math>p &lt; .001</math></b>					
<i>Cluster 1</i>	647				
3.73		6	-72	8	Intracalcarine Cortex, Lingual Gyrus
3.71		-12	-74	4	Intracalcarine Cortex, Lingual Gyrus
3.68		18	-68	0	Lingual Gyrus, Intracalcarine Cortex
3.6		4	-76	16	Supracalcarine Cortex, Cuneal Cortex, Intracalcarine Cortex
3.4		8	-84	6	Intracalcarine Cortex
3.14		18	-68	14	Intracalcarine Cortex, Supracalcarine Cortex
<i>Cluster 2</i>	233				
3.73		-34	-42	48	Superior Parietal Lobule, Postcentral Gyrus
3.7		-36	-38	38	Supramarginal Gyrus, anterior division, Postcentral Gyrus
3.15		-28	-50	56	Superior Parietal Lobule
<i>Cluster 3</i>	113				
3.75		10	-64	52	Precuneus Cortex, Lateral Occipital Cortex, superior division
3.36		22	-60	48	Lateral Occipital Cortex, superior division
<i>Cluster 4</i>	110				
3.84		30	4	50	Middle Frontal Gyrus
<i>Cluster 5</i>	77				
3.62		-32	24	0	Insular Cortex, Frontal Orbital Cortex
<i>Cluster 6</i>	37				
3.42		-50	-48	10	Supramarginal Gyrus, posterior division, Middle Temporal Gyrus, temporooccipital part, Angular Gyrus
<i>Cluster 7</i>	22				
3.41		34	20	-2	Insular Cortex
<i>Cluster 8</i>	9				
3.28		-6	12	56	Superior Frontal Gyrus, Paracingulate Gyrus

Coordinates are in MNI space

**Table B3** Peak activation in children for delay period manipulation > maintenance in a subset of correct trials after practice

z-value	# voxels	peak voxels			Region
		x	y	z	
<b>Cluster corrected at <math>z &gt; 2.3, p &lt; 0.05</math></b>					
<i>Cluster 1</i>	2545				
3.38		18	-70	4	Intracalcarine Cortex, Lingual Gyrus
3.35		16	-72	10	Intracalcarine Cortex
3.23		-18	-76	2	Intracalcarine Cortex, Lingual Gyrus
3.05		6	-82	6	Intracalcarine Cortex, Supracalcarine Cortex, Lingual Gyrus
3		-12	-68	-2	Lingual Gyrus
2.82		-36	-68	-4	Lateral Occipital Cortex, inferior division
<b>Uncorrected at <math>p &lt; .001</math></b>					
<i>Cluster 1</i>	127				
3.38		18	-70	4	Intracalcarine Cortex, Lingual Gyrus
3.35		16	-72	10	Intracalcarine Cortex
<i>Cluster 2</i>	87				
3.45		-34	-42	48	Superior Parietal Lobule, Postcentral Gyrus
<i>Cluster 3</i>	53				
3.55		30	6	52	Middle Frontal Gyrus
<i>Cluster 4</i>	23				
3.38		24	-60	48	Lateral Occipital Cortex, superior division
3.3		24	-58	52	Lateral Occipital Cortex, superior division, Superior Parietal Lobule
<i>Cluster 5</i>	18				
3.32		-50	-48	10	Supramarginal Gyrus, posterior division, Middle Temporal Gyrus, temporooccipital part, Angular Gyrus
<i>Cluster 6</i>	17				
3.23		-18	-76	2	Intracalcarine Cortex, Lingual Gyrus
<i>Cluster 7</i>	10				
3.31		10	-68	50	Precuneus Cortex, Lateral Occipital Cortex, superior division

Coordinates are in MNI space