



From Frustrated to Communicative

By: June K. Maranville, MSP CCC/SLP

Darren, an 8 year-old boy, was seen for Interactive Metronome® training as well as speech and language evaluation at the Palmetto Language & Speech Center, LLC. Two years prior to IM training, Darren was hospitalized due to hydrocele; however, Darren’s caregivers reported that he is currently in good health. His mother expressed concerns about his overall speech and language skills and that he often has trouble communicating clearly with both adults and peers causing him to get frustrated and upset. This makes it difficult for Darren to clearly express his wants and needs. Despite his difficulties Darren is very strong-willed and has a tendency to try very hard to please others. His mother described him as a fun-loving, sensitive and happy child.

“Despite his difficulties, Darren is very strong-willed”

Interactive Metronome® (IM) is a brain-based rehabilitation assessment and training program developed to directly improve the processing abilities that affect attention, motor planning, and sequencing. This, in turn, strengthens motor skills, including mobility, gross motor function, and many fundamental cognitive capacities such as planning, organizing and language. Research shows that combining movement and cognitive tasks leads to better overall outcomes and improvements in language and cognition, stronger motor control and coordination, and enhanced balance and gait. IM is the only training program that improves timing in the brain in an organized, systematic, flexible and engaging format.

In his first IM session, Darren scored in the severe deficiency range, according to the IM indicator chart. Along with IM training, the examiner also measured pre/post speech language skills.

Age	6	7 - 8	9 - 10	11 - 12	13 - 15	16+
Extreme Deficiency	280+	270+	260+	240+	215+	200+
Severe Deficiency	175-279	170-269	160-259	155-239	150-214	147-199
Below Average	120-174	90-169	80-159	75-154	72-149	70-146
Average	90-119	65-89	55-79	45-74	43-71	41-69
Above Average	56-89	45-64	38-54	36-44	33-42	30-40
Exceptional	40-55	32-44	28-37	26-35	23-32	22-29
Superior	Below 40	Below 32	Below 28	Below 26	Below 23	Below 22

Darren was administered the The Oral and Written Language Scale (OWLS) prior to IM training. The OWLS was designed to measure listening comprehension and oral expression abilities in children from age 3 to 21. The OWLS has a mean score of 100 with a standard deviation of 15.

	Raw Score		Standard Score		Percentile		Age Equiv.	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Listening Comprehension	38	41	72	72	3	3	4-11	5-4
Oral Expression	17	32	55	68	0.1	2	3-3	4-10
Oral Composite	n/a	n/a	61	68	0.5	2	4-1	5-1

In addition to the IM assessments and the OWLS, the Comprehensive Test of Phonological Processing (CTOPP) along with The Test of Auditory Processing Skills-3 (TAPS-3) were also administered before IM training. The CTOPP was developed to help identify people at risk



www.InteractiveMetronome.com
877-994-6776

for phonological processing difficulties related to listening comprehension, reading comprehension and mathematical calculations. The CTOPP subtests were designed to provide information for three areas: phonological awareness, phonological memory and rapid naming.

The TAPS-3 was designed to assess the processing of auditory information that pertains to the cognitive and communicative aspects of language. The TAPS-3 subtests were designed to provide information for four areas: auditory attention, basic phonemic skills, auditory memory and auditory cohesion.

“Darren was still the same fun-loving and happy boy”

In addition, Darren showed significant gains in areas measured on the OWLS, CTOPPS and TAPS-3 after receiving IM treatment except for rapid naming. Not only did Darren show improvement on his assessments but his mother and other caregivers were reporting improvements in daily function, communication, calming himself and reading skills. According to his mother the best part, however, was that Darren was still that same fun-loving, sensitive and happy boy she loves.



CTOPP INDEX AND OVERALL SCORES

	Sum of Scaled Scores		Standard Score		Percentile	
	Pre	Post	Pre	Post	Pre	Post
Phonological Awareness (EL & BW)	17	20	27	50	91	100
Phonological Memory (MD& NR)	14	16	12	21	82	88
Rapid Naming (RD & RL)	15	14	16	12	85	82

TAPS-3 INDEX AND OVERALL SCORES

	Sum of Scaled Scores		Standard Score		Percentile	
	Pre	Post	Pre	Post	Pre	Post
Phonological Skills (Subtests 1,2,3)	28	37	97	112	42	79
Memory (Subtests 4,5,6,7)	23	34	79	93	8	32
Cohesion (Subtests 8,9)	5	10	62	75	1	5
Overall	56	81	81	95	10	37

By the time Darren completed his IM training, he was scoring in the average range, he was no longer in the severe deficiency range.



www.InteractiveMetronome.com
877-994-6776