

A collection of studies to evaluate the efficacy of The Listening Programme in improving auditory skills, speech and communication for children with Disabilities, to include Down Syndrome, autism, dyspraxia, dyslexia and ADHD, and unspecified.

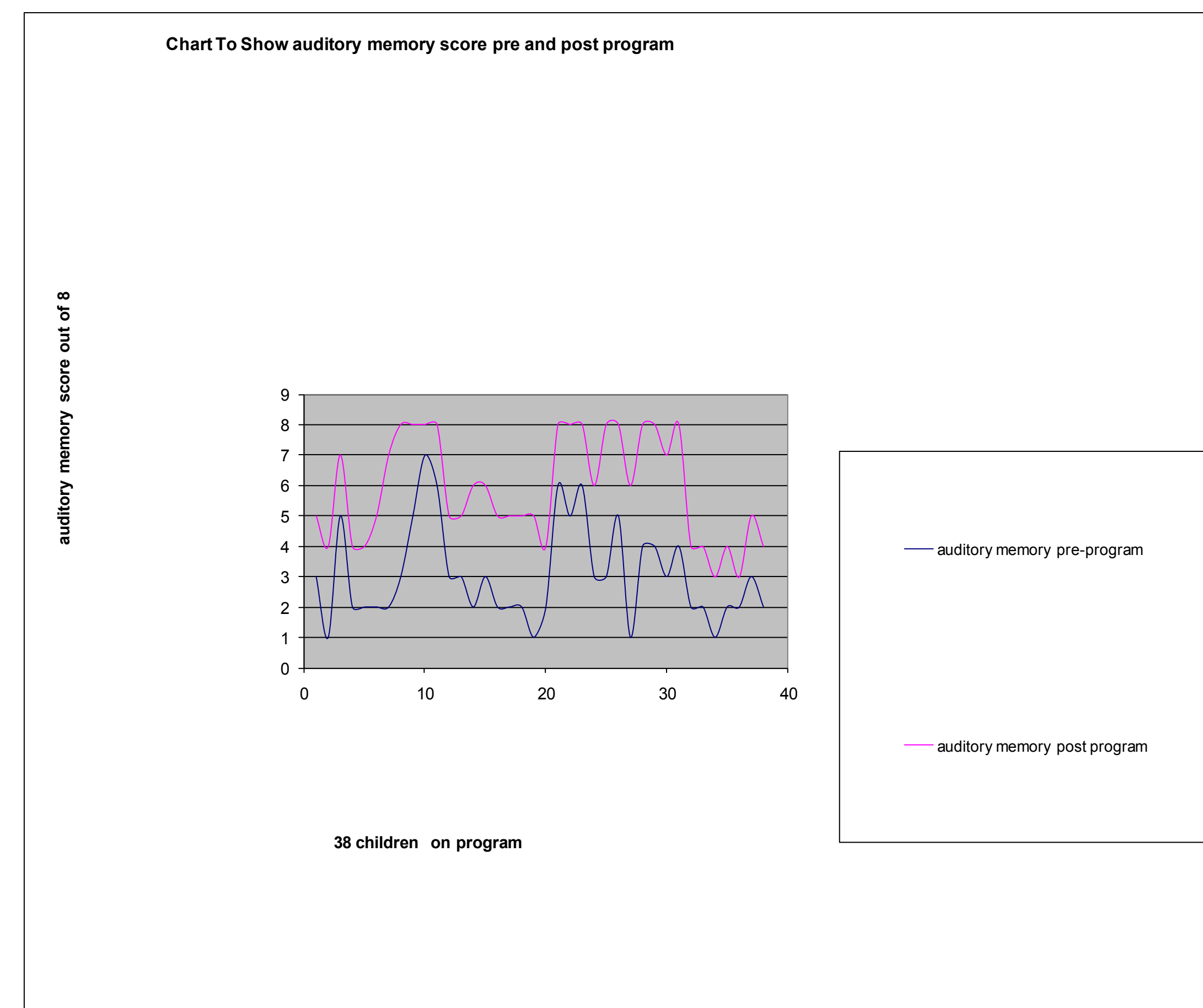
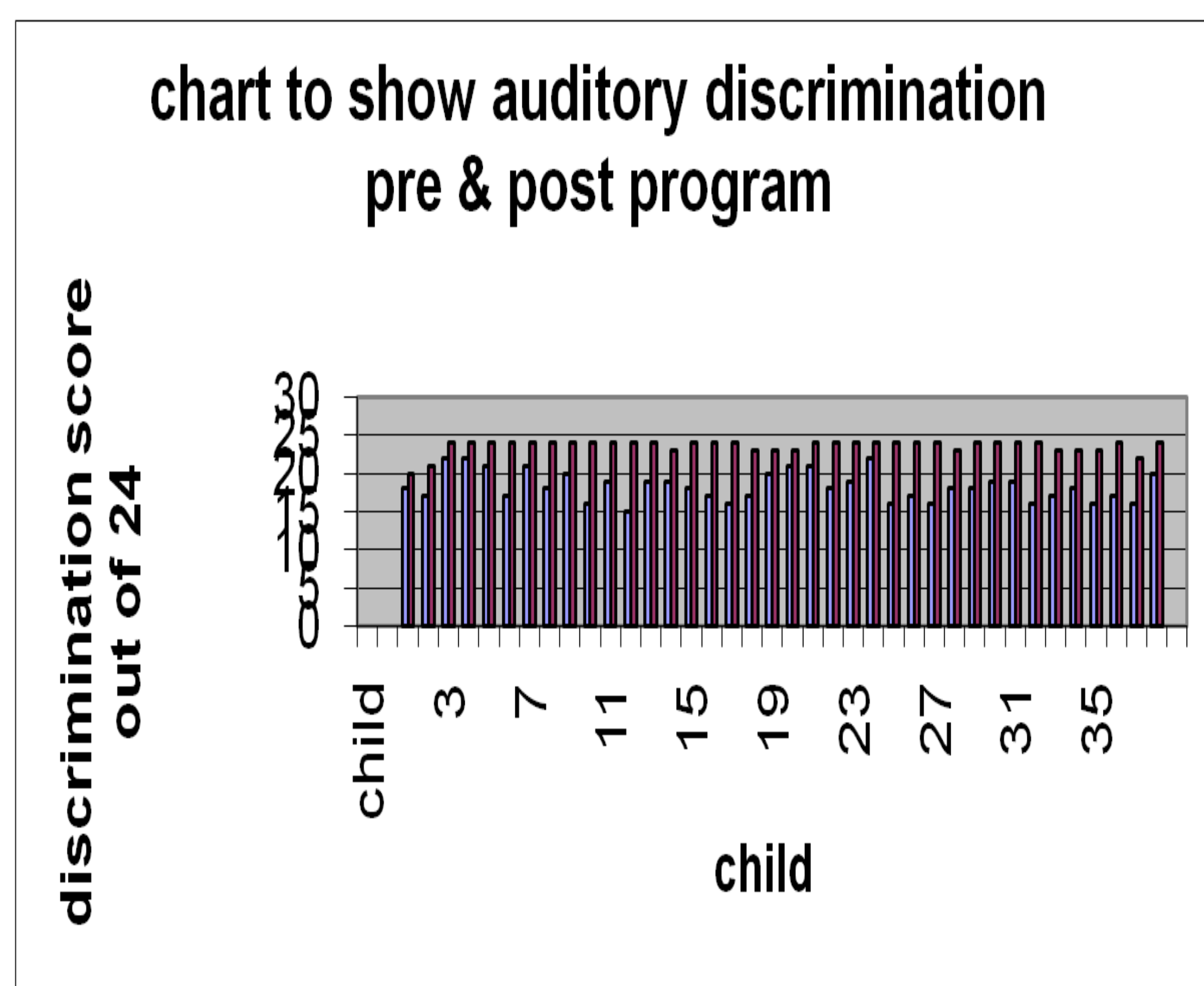
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 Co author of Down Study Caroline Newton Nottingham Down Syndrome support group, Down Syndrome speech & language therapy

SUMMARY :
 The aim of the studies was to evaluate the efficacy of the use of The Listening Training Program , from Advanced Brain Technologies, in improving auditory skills and communication for children of different labels. The first study took place in school and the children involved were of primary age group , having labels of dyslexia, dyspraxia, ADHD, autism and not specified.. The second study, done in conjunction with Caroline Newton, involved children with Down syndrome. The third study was involved with children with autism; a group from a parent support group in Ireland and an individual with severe autism ,at a residential school. In the school study all the children improved in auditory discrimination and memory and there was accelerated performance seen in the academic results from the school. Teachers and parents involved with Down study reported improvements in communication and language skills. All the individuals involved in the autism study showed improvement in The Scan Test of Auditory Processing Skills and parents and teachers found improvements in attention, communication and other areas.

METHODOLOGY
 The school group were tested pre and post programme, for auditory discrimination and auditory sequential memory, using The Quest test . Academic test scores produced annually by the school were used to assess academic progress. Questionnaires to teachers and parents were used to assess change for the Down Syndrome group as the majority were unable to complete standardized tests. Results were included for the Mispronunciation Test from Maggie Vance (Sheffield University) where results were significant. All those on the autistic spectrum were tested using Scan Test of Auditory Processing Disorders pre and post input and, parents and teachers involved completed questionnaires. All the children listened to CDs of specially modified classical music from Advanced Brain Technologies, through Sennheiser headphones. The school group listened to the Classic set, half an hour, five days a week, over 8 weeks and the others to TLP1, for half an hour a day for 10 weeks and in some cases it was split into 2 fifteen minute segments

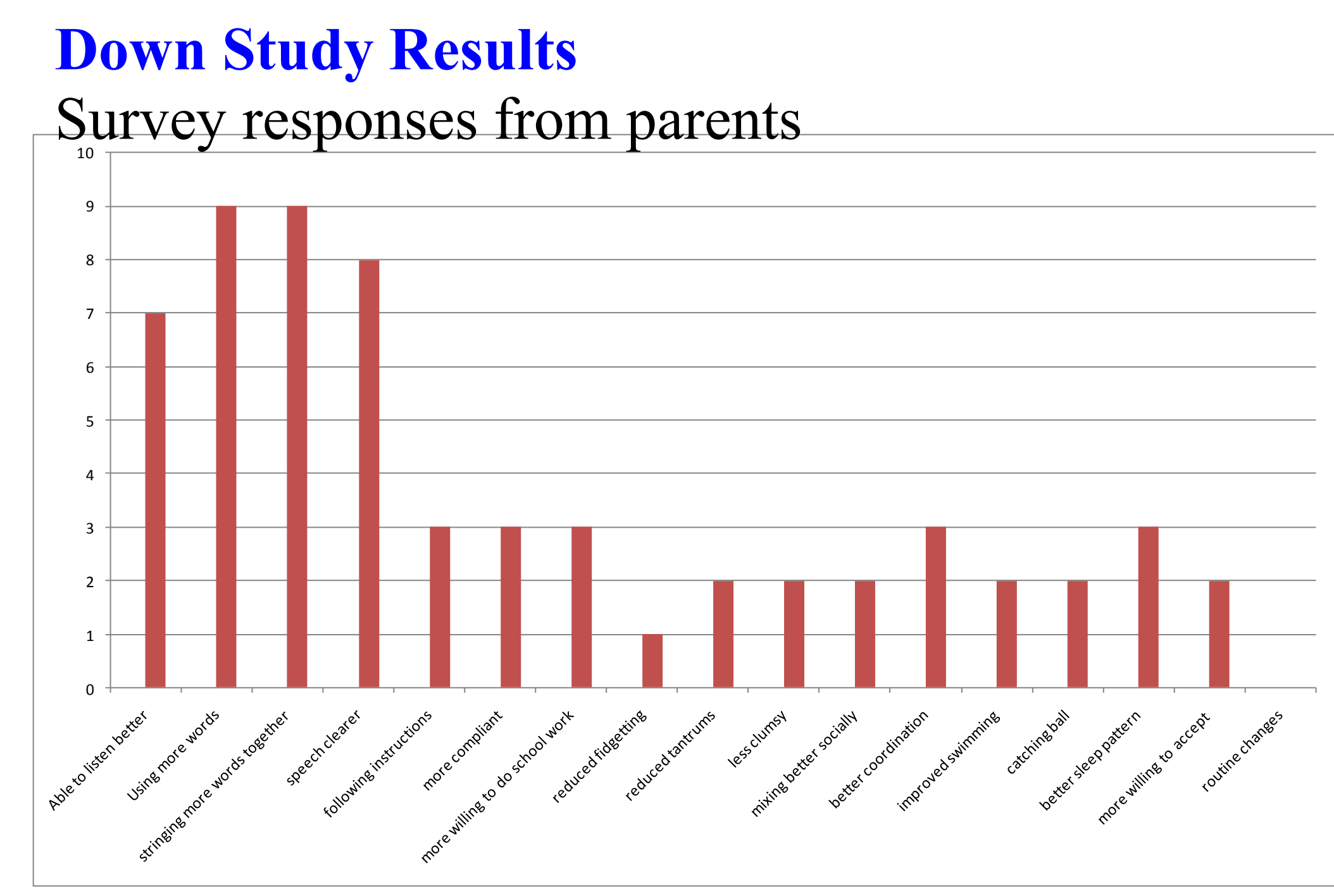
RESULTS for School Study presented BDA conference , Warwick 2004. paper on website

Charts show improvements made by primary school children labelled dyslexia, dyspraxia, autism, ADHD and underachieving without label, following use of listening programme,. The results were mirrored by academic improvements found in the independent , annual school tests.

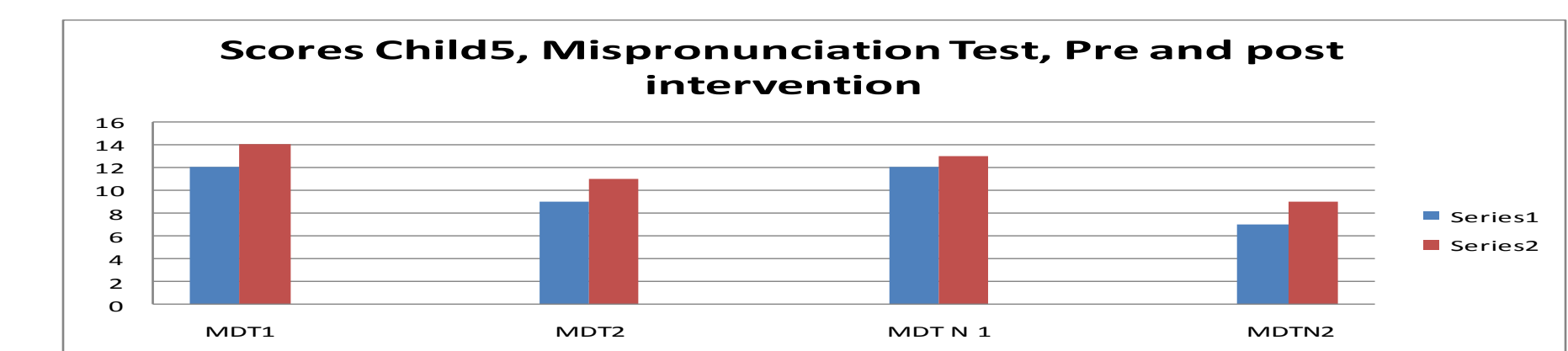


The Listening Programme
 When auditory perception is distorted through illness, developmental delay or other causes, auditory processing problems can lead to academic, emotional, cognitive and social challenges. Auditory processing problems are common in people with dyslexia, ADHD, autistic spectrum disorders and others. The Listening Programme is used to address these difficulties.
 The programme was developed by a multidisciplinary team made up of specialists from child development, neurology, psychiatry, speech and language alongside musicians and engineers in the field of psychoacoustics and technology. The original programme was Classic and was followed by TLP which is slightly longer and includes more early work on lower frequencies and has spatial surround built in, using the most up to date technologies.

Certain music, like that of Mozart, Haydn and Vivaldi, has specific structure, producing sound waves in organized patterns. With the patterns are the vital elements of time, frequency and volume. When listening to music the ear is receiving the musical sound waves in the different frequencies. These stimulate the brain and affect the different functions of the body.
 Taking the TLP programme, the first 2 CDs are full spectrum sound, followed two CDs lower frequency sound, 2 CDs mid frequency and finishing with 4 CDs dealing with higher frequencies. The twelve tracks on each CD are arranged in sets of 3, ABT patent pending modular design. The first track prepares the listener, the second has more intensive stimulation and the third is a relaxed segment for integration. In the middle track there is filtration where the lower frequencies are gradually removed, there is audio bursting where there are sudden changes of volume to awaken attention . Spatial surround technology allows the listener to locate different instruments in different positions as they are in an orchestra. The arrangement is organized to stimulate the different functions of the auditory processing system This enables the brain to better receive, process , store and use the auditory information it receives in home or school.

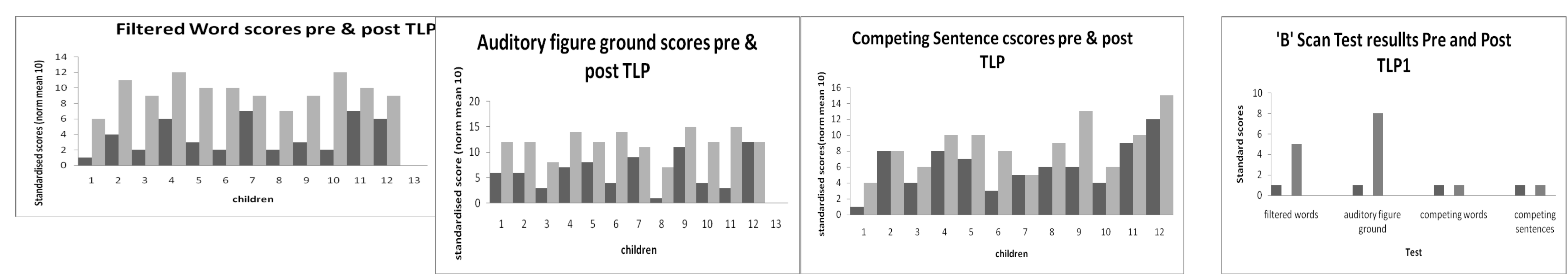


Teacher comments—Down Study , the questionnaires from teachers showed a very positive improvement in clarity of speech and active listening, highlighting the discrimination of sounds in words particularly at the ends (auditory closure) and the use of a greater number of words and connectives



Down Study published in Music and Medicine Journal 371809 Volume 2 No 4 Oct 2010

Autism study see www.toolsforlife.co.uk Tables 1-3 Autistic group Scan results 'B' is individual study



Autistic individual 'B' made great improvements in competing word and sentence test though this did not change standardised score.

CONCLUSION No adverse effects were reported but the use of the programme did appear to improve auditory skills, leading to improved listening and communication and had other effects though they were not universal. I will continue studies of this program. The autism study is continuing.