## Forbrain® improves reading speed and comprehension.

A study conducted at the Mediterrani de La Ampolla School (in Tarragona) shows Forbrain®'s beneficial effects on improving reading speed and comprehension.

This Neurosensory stimulation program was used with 8 primary school students: 4 of them in first grade, 2 in second grade and 2 in sixth grade over a 2-month period, with 4 weekly sessions, giving a total of 20 Forbrain® sessions per child.

The study was carried out between May and June 2015, and it included both girls and boys. The school's diversity was also taken into account, and some of the participating students had attention deficit issues.

Forbrain® improved all of the participating student's reading skills. This is particularly noticeable in improved reading speed and, in some cases, higher self-confidence and a decrease in reading mistakes.

To measure the students' progress and evaluate the program's benefit in the school, we used the standard reading speed test GALÍ in Catalonian. We also took into consideration that Forbrain has an important effect in other aspects of the child's development as well. We were able to observe the reading ability improvement in each of the 8 children who used Forbrain during the period of the study:

**Student 1:** In March, a Chinese girl in first grade with pronunciation difficulties was reading 38 words per minute with an error rate of 10%. Her reading was hesitant and syllabic. By June, her reading speed had increased to 44 words per minute without making any mistakes and her self-confidence had greatly improved. The evaluation results were very positive, especially in terms of pronunciation. The Forbrain program had a very positive overall effect in helping her overcome her difficulties.

**Student 2:** In March, a first grade boy was reading, 22 words per minute with an error rate of 20% with a syllabic reading. By June, he had increased his reading speed to 30 words per minute and reduced his error rate to 10%. The overall evaluation was very positive because his error rate was reduced by half and his level now approaches the first grade standard.

**Student 3:** In March, a first grade boy was reading 27 words per minute with an error rate of 10%, with a syllabic reading. By June, his reading rate

had increased to 30 words per minute, though his error rate remained at 10%. There was a low increase in reading speed, but still his reading level now approaches the first grade standards.

**Student 4:** In March, a first grade boy who likes to attract attention and sometimes doesn't feel like working was reading 21 words per minute with an error rate of 16%. His reading was hesitant and syllabic. By June, his reading rate had increased to 29 words per minute and his error rate to 17%. Though his error rate remained about the same, his reading speed increased by 8 words per minute.

**Student 5:** In March, a third grade girl with attention problems had very deficient reading and writing skills, and also displayed very apathetic and passive behavior. Back in March, she was reading 22 words per minute with an error rate of 0%. After her Forbrain sessions, she was reading 27 words per minute with a 0% error rate. Her reading was still a bit hesitant but the increase of 5 words per minute brought her closer to the first grade reading standard.

**Student 6:** a third grade girl of Chinese origins who has lived in Catalonia for 2 years has problems reading and writing and lacks vocabulary. Back in March, her reading was very syllabic with a speed of 30 words per minute and an error rate of 6%. In June, her reading speed increased to 48 words per minute, though her error rate remained at 6%. She stills hesitated while reading, but her speed increase by 18 words per minute brought her closer to the second grade standard.

**Student 7:** a sixth grade boy with reading difficulties was reading 90 words per minute with a 6% error rate. He was reading in a very syllabic and uneven way and was feeling very insecure during the activity. Since using Forbrain, his reading speed has increased by 8 words per minute and he has greatly improved in terms of self-confidence.

**Student 8:** a sixth grade boy showing very little interest and motivation and occasionally behaving aggressively was reading 86 words per minute with an error rate of 8%. After the Forbrain sessions, he was reading 95 words per minute with a 7% error rate, so his reading speed increased by 8 words per minute.

This study clearly shows Forbrain's beneficial effect on the students. All the students have increased their academic performance and their ability to process information has become more effective. Working on their phonological awareness, they have improved their oral expression, diction and fluency, which has also had a positive effect on memory and attention.

