

# BrainWare Safari and a family with ADD/ADHD



Mrs. C<sup>i</sup> is the mother of 4 boys aged 6, 9, 10, and 11, all of whom she homeschools. The three oldest children have been diagnosed with various degrees of Attention Deficit Disorder. Mrs. C was seeking a program that might help her children with their attention issues as well as some of their other learning and processing difficulties. Because BrainWare Safari develops attention skills as well as other cognitive processing skills, Mrs. C agreed to having each of her children use the program for three one-hour sessions per week for 11 weeks, and to conduct a pre- and post-evaluation to help assess whether the program helped with her children's development, learning ability, and academic performance. The evaluations were Behavioral Rating Scales that are designed to help parents and teachers make observations about behavioral characteristics that are affected by developing cognitive skills. Each area has several behaviors that are rated based on how the child compared to others of the same age.

The boys went through their usual routine including take their medications and attending their outside classes.

## **Grant: Age 6**

Grant seems to be normally developing at this point. At the beginning, Grant would become somewhat frustrated using BrainWare, but became more comfortable with it as he progressed.

BWS Levels completed: 104

Sessions completed: 33

	<b>Pre-Evaluation</b>	<b>Post-Evaluation</b>
Sensorimotor skills	Above Average (22)	Above Average (24)
Attention Skills:	Average (19)	Above Average (22)
Memory Skills	Average (20)	Above Average (22)
Perceptual Processing Skills	Above Average (21)	Above Average (22)
Thinking Skills	Above Average (21)	Above Average (23)
Self-Esteem	Above Average (24)	Above Average (24)

On the post-evaluation, Grant demonstrated a fair degree of improvement in the first five areas, with attention skills and memory skills both moving from the average to the above average range. Self-esteem remained level with the pre-evaluation. Grant's overall skills in each of the six areas are now in the above average range.

Areas of academic improvement noted:

- Is able to solve more complex math problems.
- Notable improvement in processing speed.
- Sticks with challenging work.
- Plays the piano for 30 minutes at a time without being asked.

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- Works on more difficult music without it being assigned.
- Works ahead on school tasks.
- Improved reading.
- Greater confidence in spelling ability.

### **Kelvin: Age 9**

Kelvin was initially diagnosed with inattentive ADD, but may be anxiety-driven ADD. Ritalin was effective at times but not always. They recently switched to Straterra. He has a history of anxiety issues.

BWS Levels completed: 118

Sessions completed: 31

	<b>Pre-evaluation</b>	<b>Post-evaluation</b>
Attention Skills:	Below Average (12)	Average (20)
Memory Skills	Significantly Above Average (26)	Above average (22)
Perceptual Processing Skills	Below Average (13)	Average (19)
Thinking Skills	Average (20)	Above average (23)
Life Management Skills	Average (18)	Average (19)
Self-Esteem	Average (16)	Above Average (21)

On post-evaluation, Kelvin made very good improvement in attention skills and good improvement in perceptual processing and self-esteem. The post-evaluation was not completed for Kelvin until February 2008, approximately three months after he completed the 11 weeks with BrainWare.

Kelvin was the most difficult to evaluate. He did improve in his ability to do some work independently. There also is improvement in attentiveness when distractions are present but this does not seem to be consistent. He has good days and bad days for attentiveness. He does seem to have more concern for completing his homework completely and properly.

Areas of academic improvement noted:

- His spelling has improved.
- His mental math skills seem improved although he is not as independent as his mother would like.

### **Peter: Age 10**

Peter has been diagnosed with ADD. When unmedicated, he talks non-stop, makes irritating noises, annoys his brothers (and mother), and doesn't accomplish the task at

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hand. In the morning, before he takes his medication, he will not stay seated to eat, and won't brush his teeth or get dressed without many reminders. When he has taken his medication, he focuses and is an independent learner.

BWS Levels completed: 162

Sessions completed: 38

	<b>Pre-evaluation</b>	<b>Post-evaluation</b>
Attention Skills:	Below Average (15)	Above Average (24)
Memory Skills	Above Average (21)	Significantly Above Average (26)
Perceptual Processing Skills	Above Average (23)	Significantly Above Average (26)
Thinking Skills	Above Average (25)	Above Average (23)
Life Management Skills	Average (16)	Above Average(21)
Self-Esteem	Average (18)	Above Average (24)

On the post-evaluation, Peter made very good improvement in attention skills, while showing good improvement in memory, life management and self-esteem. He showed a fair degree of improvement on processing skills. His thinking skills decreased slightly on this evaluation; however they remained in the above average range. As a result, Peter was able to perform at the above average level in all skill areas on the post-evaluation.

Peter generally seemed to find BrainWare Safari easy until reaching the most difficult levels of the program.

Areas of academic improvement noted:

- Mentally able to solve more complex math problems.

## **Benedict: Age 12**

Benedict has been diagnosed with inattentive ADD. He is rule-oriented and aims to please, so behavior is not an issue. He doesn't take his medicine at all during the summer. He is very perceptive and aware of his issues, and he works hard to compensate for his inattentiveness. He takes Ritalin when he has a full school day, although he does not like taking it.

BWS Levels completed: 162

Sessions completed: 29

	<b>Pre-evaluation</b>	<b>Post-evaluation</b>
Attention Skills:	Below Average (13)	Above Average (22)
Memory Skills	Above Average (21)	Above Average (25)
Perceptual Processing Skills	Below Average (12)	Above Average (22)
Thinking Skills	Average (20)	Above Average (24)

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Life Management Skills	Significantly Below Average (9)	Average (20)
Self-Esteem	Average (16)	Average (20)

On the post-evaluation, Benedict showed very good improvement in three of the six areas, namely, attention, perceptual processing and life management skills. These were his three lowest rated areas on the pre-evaluation. He made good improvement in the three remaining areas. As a result, Benedict improved his performance to above average in four areas and to the high end of the average range for the other two.

Benedict found BrainWare Safari somewhat difficult.

Areas of academic improvement noted:

- Devoured two assigned books and was able to answer every comprehension and discussion question.
- Independently completed a writing assignment (usually has requested help).
- Decrease in careless mistakes.
- Improved ability to persevere when working on challenging tasks.
- Experiences less frustration.
- Works more independently.

## **Overall Results**

In this study, attention skills improved for all four of the children, three of whom had been diagnosed with ADD. Two boys improved their cognitive skills, in some cases substantially, in all areas. The third improved in all but one skill area; with a small decline in one area, he nonetheless remained at the above average level in that area. The fourth showed an improvement in all but one area, where he decreased slightly; he also remained above average in the one area that showed decrease.

All of the boys were able to complete between 104 and 162 levels of the program. The number of levels completed in each case was consistent with (as high as or higher than) other children who have used the program. Their levels of improvement on the behavioral rating scale are also consistent with other children.

This case study suggests that children with ADD can benefit from using BrainWare Safari as do children without an ADD diagnosis.

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<sup>i</sup> This is a real American family. Their names have been changed to protect their identity.